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**STATE OF NEW MEXICO
BEFORE THE ENVIRONMENTAL IMPROVEMENT BOARD**

IN THE MATTER OF:

PROPOSED NEW REGULATION

No. EIB 21-27 (R)

20.2.50 Oil and Gas Sector — Ozone Precursor Pollutants

**THE GAS COMPRESSOR ASSOCIATION’S
CLOSING ARGUMENT, STATEMENT OF REASONS
AND PROPOSED VERSION OF THE RULE (20.2.50 NMAC)**

Pursuant to the *Procedural Order* issued by the Hearing Officer on August 25, 2021 and the November 22, 2021 *Amendment to Procedural Order on Post-Hearing Process*, the Gas Compressor Association (“GCA”) respectfully submits its closing argument, statement of reasons and proposed version of the rule, 20.2.50 NMAC, it recommends for adoption by the Environmental Improvement Board (“Board”) (attached as Exhibit A). The GCA appreciates the opportunity to provide these post-hearing submissions for the Board’s consideration.

INTRODUCTION AND BACKGROUND

The GCA is an association whose members include owners and operators of engine-driven natural gas-fired compressors that are utilized to provide compression services to producers and midstream companies within the oil and gas industry in New Mexico and throughout the United States. GCA members serve a vital function in the New Mexico oil and gas industry, as its compressor packages help move natural gas through the pipelines that transport that gas from production areas to gas processing plants and ultimately to end-users.

GCA members’ operations in New Mexico will be affected by proposed 20.2.50, and the GCA has been an active participant in the New Mexico Environment Department’s (“NMED’s” or “Department’s”) development of the proposed rule. The GCA participated in the stakeholder

process that preceded the hearing in this matter, and has been an active participant in the hearing itself. On July 28, 2021, the GCA timely filed its Notice of Intent to Present Technical Testimony, along with the advance written direct testimony of six witnesses. On September 7, 2021, the GCA timely filed its Notice of Intent to Present Direct Rebuttal Testimony, along with the advance written rebuttal testimony of three technical rebuttal witnesses. The GCA presented the testimony of its witnesses and cross-examined the witnesses of other parties to the proceeding during the Board hearing that took place from September 20 to October 1, 2021.

The NMED has released two different pre-hearing versions of proposed 20.2.50 during the course of this proceeding. The initial draft, which was filed as part of the NMED's initial prefiled case, is marked NMED Exhibit 41 and is dated July 28, 2021. A revised draft of the proposed rule is marked NMED Rebuttal Exhibit 23 and is dated September 16, 2021. The NMED issued the September 16, 2021 version of the proposed rule following its review of the prefiled direct and rebuttal cases of the parties, in advance of the live hearing that started on September 20, 2021. For purposes of this Closing Argument and Statement of Reasons, the GCA refers to the September 16, 2021 version of proposed 20.2.50 as the "Proposed Rule."

The GCA's prefiled direct and rebuttal testimony identified a number of concerns with the July 2021 draft of the proposed rule, explained the bases for those concerns, and requested that the NMED change specific sections of the rule aimed at addressing those concerns. While the changes made by the NMED in the Proposed Rule addressed the GCA's chief concerns, it did not do so across-the-board. As such, the GCA supports the provisions of the Proposed Rule that will directly regulate its compressor engines and associated equipment with the exception of a single change it sought that would allow the use of carbon monoxide ("CO") as a surrogate for NMNEHC for all engine emissions testing conducted under the proposed rule. During the hearing, NMED witness

Elizabeth Bisbey-Kuehn testified in support of that change, Tr. Vol. 6, 1696:18-23 (Bisbey-Kuehn), and that change is included in both the December 16, 2021 and January 18, 2022 versions of proposed 20.2.50 that the NMED distributed to all parties and the Hearing Officer post-hearing. The GCA's support for the key provisions of proposed 20.2.50 that will affect gas compression service providers is explained in greater detail below.

As stated in the GCA's opening statement, the GCA applauds the NMED for its proactive ozone precursors rulemaking proposal designed to assure attainment in New Mexico counties with significant oil and gas operations. The GCA likewise appreciates the NMED's considerable pre-hearing efforts to collect and consider comments from all stakeholders and adjust its Proposed Rule to narrow to a significant degree the issues requiring attention in the hearing itself, as well as its organizational input and draft tables that were useful to all in preparing for and participating in the hearing.

CLOSING ARGUMENT

- I. The record supports the Engine NOx emission standards proposed by the NMED in 20.2.50.113(B).**
 - a. The record supports the NOx emission standards for existing engines proposed by the NMED in 20.2.50.113(B)(2), Table 1.**

The Proposed Rule revised the NMED's proposed emissions standards for natural gas-fired spark-ignition engines that are constructed or reconstructed before the effective date of the rule:

Table 1 - EMISSION STANDARDS FOR NATURAL GAS-FIRED SPARK-IGNITION ENGINES
 CONSTRUCTED OR, RECONSTRUCTED, ~~OR INSTALLED~~ BEFORE THE EFFECTIVE DATE OF 20.2.50
 NMAC.

Engine Type	Rated bhp	NO _x	CO	NMNEHC (as propane)
<u>2 Stroke Lean Burn</u>	<u>>1,000</u>	<u>3.0 g/bhp-hr</u>	<u>0.60 g/bhp-hr</u>	<u>0.70 g/bhp-hr</u>
<u>4-Stroke Lean Burn</u>	<u>>1,000 bhp and <1,775 bhp</u>	<u>2.0 g/bhp-hr</u>	<u>0.60 g/bhp-hr</u>	<u>0.70 g/bhp-hr</u>
<u>4-Stroke Lean Burn</u>	<u>≥1,775 bhp</u>	<u>0.5 g/bhp-hr</u>	<u>0.60 g/bhp-hr</u>	<u>0.70 g/bhp-hr</u>
<u>Rich Burn</u>	<u>>1,000 bhp</u>	<u>0.5 g/bhp-hr</u>	<u>0.60 g/bhp-hr</u>	<u>0.70 g/bhp-hr</u>
Lean-burn	>1,000	0.50 g/bhp-hr	47 ppmvd @ 15% O₂ or 93% reduction	0.70 g/bhp-hr
Rich-burn	>1,000	0.50 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr

NMED Rebuttal Exhibit 23, Proposed 20.2.50.113(B)(2), Table 1. In updating the Proposed Rule in response to the testimony filed by witnesses for the GCA and other parties, the NMED amended Table 1 in two ways: (1) the NMED established new size categories for the existing engine standards; and (2) the NMED changed the applicable NO_x emissions standards for some of those categories of engines. The GCA supports the proposed NO_x emissions standards for existing engines in 20.2.50.113(B)(2), Table 1, as set forth in the Proposed Rule.

John Dutton submitted prefiled direct and rebuttal testimony on behalf of the GCA, marked GCA Exhibit 12 and GCA Exhibit 28. Mr. Dutton is the president of J-W Power Company, a member of the GCA, and a Professional Engineer. GCA Exhibit 12 (Dutton Direct) at 2-3. Mr. Dutton testified based on decades of experience with the types of compressor engines regulated by the Proposed Rule, and his familiarity with these engines' specifications, capabilities, and how they are regulated. GCA Exhibit 12 (Dutton Direct) at 3.

Mr. Dutton testified that the emissions standards for existing engines in the earlier July 2021 draft of 20.2.50 (NMED Exhibit 41) were unachievable and based on faulty assumptions. GCA Exhibit 12 (Dutton Direct) at 7. He testified that the low emission combustion ("LEC") technology could not be broadly retrofit to existing engines, and that many existing engines already employ LEC technology yet would not be able to achieve the NO_x emissions standard in the July

2021 draft of 20.2.50. GCA Exhibit 12 (Dutton Direct) at 7-10; GCA Exhibit 28 (Dutton Rebuttal) at 3-10. Mr. Dutton also testified that application of selective catalytic reduction (“SCR”) controls was not a viable option to control NOx emissions from existing engines, because it is not economically feasible on most existing engines. GCA Exhibit 28 (Dutton Rebuttal) at 11-14. Additionally, Mr. Dutton explained that the State of Pennsylvania general permit GP-5 NOx standard for engines installed after 2013 does not serve as a reasonable basis for the New Mexico NOx emissions standards for existing engines, because the New Mexico emissions standards proposed in the July 2021 draft of the proposed rule did not include important regulatory flexibility found in the Pennsylvania program. GCA Exhibit 28 (Dutton Rebuttal) at 4. (In fact, the Pennsylvania GP-5 limit for engines installed between 1997 and 2013 is 2.0 g/bhp-hr NOx, consistent with what the NMED ultimately proposed as the existing engine NOx standard. GCA Exhibit 28 (Dutton Rebuttal) at 4; NMED Exhibit 37 (Pennsylvania Permit GP-5) at 12.) Mr. Dutton testified that the unreasonably stringent NOx emissions standards for existing engines in the July 2021 draft of the rule would require owners and operators to replace a large number of existing engines that already employed LEC technology to reduce NOx emissions, but nonetheless would not be capable of meeting the draft rule’s NOx standards. GCA Exhibit 12 (Dutton Direct) at 11.

However, the Proposed Rule responded to Mr. Dutton’s concerns, and included the updated emissions standards for existing engines identified in Table 1 above. NMED Rebuttal Exhibit 23, Proposed 20.2.50.113(B)(2), Table 1. NMED’s witness testified in support of the updated NOx emissions standards for existing engines in the Proposed Rule, and expressly based their existing engine emission standards set forth in the updated Table 1 of Proposed 20.2.50.113(B)(2) on the GCA’s proposal to modify the emission standards for certain categories of existing engines and to

further differentiate among different types and sizes of engines, the direct testimony of GCA witnesses on engine control technology, and the Department’s further review of the available stack test data. NMED Rebuttal Exhibit 1 (Bisbey-Kuehn and Palmer Rebuttal) at p. 29, line 18, to p. 34, line 12. Mr. Dutton also testified in support of the existing engine emissions standards in the updated version of the Proposed Rule: “There will be significant challenges to meet the requirements of the rule, particularly for some existing engines, but the engine NOx emission standards in the September 16 draft of the rule is largely technically and economically achievable for the majority of engines operated by GCA’s member companies.” Tr. Vol. 6, 1756:9-16 (Dutton).¹

b. The record supports the NOx emission standards for new engines proposed by the NMED in Proposed 20.2.50.113(B)(3), Table 2.

The Proposed Rule revised the NMED’s proposed emissions standards for natural gas-fired spark-ignition engines that are constructed or reconstructed after the effective date of the rule:

Table 2 - EMISSION STANDARDS FOR NATURAL GAS-FIRED SPARK-IGNITION ENGINES
CONSTRUCTED ~~OR~~ RECONSTRUCTED ~~OR~~ INSTALLED AFTER THE EFFECTIVE DATE OF 20.2.50
NMAC~~7~~

Engine Type	Rated bhp	NO _x	CO	NMNEHC (as propane)
Lean-burn	>500 <1,000	0.50 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr
Lean-burn	> 500 and <1,000 <u>< 1875</u>	0.50 g/bhp-hr uncontrolled or 0.05 g/bhp-hr with control	0.60 g/bhp-hr	0.70 g/bhp-hr
Lean-burn	> 1875	0.30 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr
Rich-burn	>500	0.50 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr

NMED Rebuttal Exhibit 23, Proposed 20.2.50.113(B)(3), Table 2. In updating the Proposed Rule in response to the testimony filed by witnesses for the GCA and other parties, the NMED amended Table 1 to establish new size categories for new engines and to change the applicable NOx

¹ While the National Park Service (“NPS”) filed written testimony recommending that the NMED incorporate some additional emission standards for certain smaller size categories of existing engines, *see* NPS Exhibit B, during the hearing, the NPS witness clarified that the NPS had “changed our position” and that the NPS was not recommending that the NMED adopt additional NOx emissions standards for smaller engines as part of this proceeding. Tr. Vol. 8, 2399:24-2400:9 (Devore).

emissions standard for some of those categories of engines. The GCA supports the proposed NOx emissions standards for new engines in Proposed 20.2.50.113(B)(3), Table 2.

The GCA's witness John Dutton also presented testimony regarding the NOx emissions standards for new engines in the NMED's July 28 draft of the proposed rule. Mr. Dutton testified that it is not economically viable to use post-combustion controls (such as SCR) to comply with the July 28 draft's NOx standard for new engines. GCA Exhibit 12 (Dutton Direct) at 6. SCR is only a viable control option for the largest engines that have specific site advantages, such as on-site electrical power and personnel. Tr. Vol. 6, 1753:15 to 1754:21 (Dutton). He further testified that the size categories used in the July 2021 draft of the proposed rule were arbitrary and established a NOx emission standard that was technically infeasible for engines below 1,875 horsepower, despite the application of LEC technology. GCA Exhibit 28 (Dutton Rebuttal) at 15.

A second GCA witness, Vic Sheldon, provided additional testimony relating to the proposed NOx emission standards for new engines in the NMED's July 28 draft of the proposed rule, marked GCA Exhibit 9. Mr. Sheldon has spent 37 years in the fields of design, engineering, manufacturing, and testing the types of engines to be regulated by the proposed rule. GCA Exhibit 9 (Sheldon Direct) at 3-4. Mr. Sheldon testified that the NOx emission standards for new engines in the July 28 draft of the rule failed to adequately consider the capability of new engines available today based on the use of best available technology ("BAT") and LEC technology to control NOx emissions. GCA Exhibit 9 (Sheldon Direct) at 3-4. He explained that the July 28 draft of the rule included NOx emissions standards that were lower than what was achievable for many of the engines that the rule purported to regulate, and that are available on the market. GCA Exhibit 9 (Sheldon Direct) at 14-18.

The Proposed Rule responded to the concerns raised by GCA witnesses Mr. Dutton and Mr. Sheldon, and proposed the NOx emissions standards and size thresholds for new engines identified in Table 2 above. NMED Rebuttal Exhibit 23, Proposed 20.2.50.113(B)(3), Table 2. No party presented testimony opposing the NOx emissions standards for new engines found in NMED Rebuttal Exhibit 23. NMED's witnesses testified in support of the updated NOx emissions standards for new engines in the Proposed Rule, stating that "[t]he revised limits in Table 2 are the same as those recommended by GCA" through its witnesses, including testimony offered by GCA that "post-combustion controls for NOx are not feasible at this time" for certain lean-burn engines. *See* NMED Rebuttal Exhibit 1 (Bisbey-Kuehn and Palmer Rebuttal) at p. 34, line 13, to p. 35, line 9. Both Mr. Dutton and Mr. Sheldon testified in support of the NOx emissions standards for new engines in the Proposed Rule. Tr. Vol. 6, 1749:20-1750:3 (Sheldon); Tr. Vol. 6, 1756:9-19 (Dutton).

c. The record supports the manner in which the Proposed Rule distinguishes between new and existing engines.

As described above, the Proposed Rule establishes separate emissions standards for new and existing engines. It distinguishes between those two classes of engines based on whether the engine is "constructed or reconstructed" before or after the effective date of the rule. NMED Rebuttal Exhibit 23, Proposed 20.2.50.113(B)(2), Table 1 & (B)(3), Table 2.² In updating the Proposed Rule in response to the testimony filed by witnesses for the GCA and other parties, the NMED amended Table 1 and Table 2 to delete earlier rule language that would have categorized an engine as existing or new based on whether the engine was "installed" before or after the

² The NMED's post-hearing drafts of the rule issued December 16, 2021 and January 18, 2022 change the table headings for Table 1 and Table 2 and replace the references to engines "constructed or reconstructed" before or after the effective date of the rule with a simplified references to new or existing engines. The Proposed Rule's definitions of "new" and "existing" in 20.2.50.7 are based on when a source is constructed or reconstructed; as a result, the same concepts are used to distinguish between new and existing engines in all three drafts of the proposed rule.

effective date of 20.2.50 NMAC. The NMED also amended the definition of “construction” to clarify that the relocation of an existing engine (with no changes to the engine other than location) would not make that engine a “new” engine under the Proposed Rule.³ The GCA supports the manner in which the Tables in proposed 20.2.50.113(B) distinguish between new and existing engines and the updated definition of “construction” in the Proposed Rule.

John Dutton submitted testimony on behalf of the GCA that the NMED should not consider an engine “new” simply because that engine is moved and “installed” at a new location after the effective date of the Proposed Rule. GCA Exhibit 12 (Dutton Direct) at 13. Relocation of compressor packages (and the engines that power the compression) is common, and nothing about the relocation of an existing engine (where the engine is not otherwise reconstructed) should provide a basis for converting the engine in that package from an existing engine into a new engine that is subject to significantly more-stringent emissions standards. GCA Exhibit 12 (Dutton Direct) at 13. GCA witness Vic Sheldon provided consistent testimony, and noted that relocation does not trigger “new source” applicability under the federal NO_x standards that regulate these same engines. GCA Exhibit 9 (Sheldon Direct) at 19.

NMED’s witnesses provided written testimony and testified during the hearing in support of the updated NO_x emission standards for new and existing engines in NMED Rebuttal Exhibit 23 and Proposed 20.2.50.113, which determine applicability based on the date that the engine is constructed or reconstructed. NMED witnesses specifically adopted the proposal for how to distinguish between existing and new engines with testimony that “the ‘new’ engine applicability will be based only on the construction or reconstruction date, and will not be affected by

³ NMED proposed an updated definition of “construction” in 20.2.50.7(J): “fabrication, erection, or installation of a stationary source, including but not limited to temporary installations and portable stationary sources, but does not include relocations or like-kind replacements of existing equipment.” NMED Rebuttal Exhibit 23, p.2.

installation of existing engines at new locations.” *See* NMED Rebuttal Exhibit 1 (Bisbey-Kuehn and Palmer Rebuttal) at p. 35, lines 2-4. During the hearing, the GCA’s witnesses Mr. Dutton and Mr. Sheldon both identified their concerns regarding new/existing engine applicability in the July 2021 draft rule language, but testified in support of the engine emissions standards in the Proposed Rule, including the updated language for determining whether an engine will be regulated as a new or existing engine. Tr. Vol. 6, 1749:15-18 and 1749:24-1750:3 (Sheldon); Tr. Vol. 6, 1755:4-10 and 1756:9-19 (Dutton).

During the hearing, a witness testifying on behalf of the Clean Air Advocates, Dr. Daniel Orozco, offered sensational and speculative testimony that removing “installed” as a trigger for engines to be subject to “new source” standards would make New Mexico “a dumping ground for old, high-pollution equipment that is no longer allowed in other states.” Tr. Vol. 9, 2975:2-5 and 2976:1-3 (Orozco). Under cross-examination, however, Dr. Orozco admitted that his “dumping ground” statement was hyperbole, as detailed below.

As reviewed in great detail above, the Proposed Rule establishes emissions standards for both existing and new engines. Even if the relocation of an existing engine does not subject that engine to regulation as a “new” engine, that engine must still meet the NO_x emissions standard for existing engines in proposed 20.2.50.113(B)(2), Table 1. On cross-examination from counsel for GCA, Dr. Orozco acknowledged that the Proposed Rule’s NO_x standards for existing engines would keep New Mexico from being a “dumping ground” for old, high-polluting engines:

Q: So existing engines are regulated under the proposed standard, correct?

A: Yep. Um-hum.

Q: And the proposed standard sets a limit of 2.0 grams of NO_x per horsepower-hour for those engines, correct?

A: Yeah. Yeah.

Q: Now, an engine that can meet 2 grams of NO_x per horsepower-hour, that’s not an old, high-polluting engine, is it?

A: No.

Tr. Vol. 9, 2984:25-2985:10 (Orozco). The record supports the NMED's decision not to base new-source engine standards on the relocation or "installation" of an existing engine at a new location, and the NMED's decision will not – even in Dr. Orozco's view – turn New Mexico into a state in which "old, high-polluting" engines are allowed to operate.

II. The record supports the maintenance and repair requirements for engines proposed by the NMED in Proposed 20.2.50.113(C).

The Proposed Rule establishes maintenance and repair requirements for engines at 20.2.50.113(C). The Proposed Rule requires that engine maintenance and repair meet the manufacturer recommended maintenance schedule, as defined in 20.2.50.112. NMED Rebuttal Exhibit 23, Proposed 20.2.50.113(C)(1). Proposed section 112 defines manufacturer specifications as "either the original equipment manufacturer (or successor) . . . maintenance practices and schedules, or an alternative set of specifications, maintenance practices and schedules sufficient to operate and maintain such sources in good working order, which have been approved by qualified maintenance personnel based on engineering principles and field experience." NMED Rebuttal Exhibit 23, Proposed 20.2.50.112(A)(1). The engine maintenance rule in section 113 further specifies that "[m]aintenance conducted consistent with an applicable NSPS or NESHAP requirement shall be deemed to be in compliance with 20.2.50.113(C) NMAC." NMED Rebuttal Exhibit 23, Proposed 20.2.50.113(C)(2). The GCA supports the engine maintenance and repair requirements in Proposed 20.2.50.113(C).

Mark Copeland submitted prefiled direct testimony on behalf of the GCA, marked GCA Exhibit 15. Mr. Copeland is the Director of Field Operations Support and Service for Archrock, a member of the GCA. GCA Exhibit 16 (Copeland Resume). Mr. Copeland has over 32 years of experience working in the natural gas compression industry, and for the past 15 years his focus

has been the development and oversight of operations and maintenance processes and improvements to ensure efficient operation of compressor engines, to maintain those engines' must-run availability for customers, and to ensure compliance with applicable federal and state regulatory requirements. GCA Exhibit 15 (Copeland Direct) at 2. Mr. Copeland testified based on his many years of working directly with the inspection and maintenance of the compressor engines that will be regulated by the Proposed Rule.

Mr. Copeland testified that the engine maintenance requirements in the July 2021 draft of 20.2.50 (NMED Exhibit 41), which required engine maintenance to "meet the minimum manufacturer recommended maintenance schedule," would unnecessarily constrain the owners and operators of engines in the compression services industry, and that such a requirement would be impractical, overly burdensome, unnecessarily expensive, and counterproductive. GCA Exhibit 15 (Copeland Direct) at 3. He testified that a manufacturer's minimum recommended maintenance schedule is a one-size-fits-all recommendation that fails to account for the actual service and operating conditions of a particular engine, that the real expertise in operating and maintaining compressor engines lies with operators and not engine manufacturers, and that the applicable federal air rules allow for tailored engine inspection and maintenance plans consistent with good air pollution control practice for minimizing emissions. GCA Exhibit 15 (Copeland Direct) at 3-7.

The Proposed Rule responded to the concerns raised by Mr. Copeland and provided the necessary flexibility for engine maintenance and repair schedules. NMED Rebuttal Exhibit 23, Proposed 20.2.50.113(C)(1) and 20.2.50.112(A)(1). No party presented testimony opposing the changes to the engine maintenance requirements in NMED Rebuttal Exhibit 23. NMED's witness testified in support of the updated engine maintenance standards for new engines in the Proposed Rule during the hearing. Tr. Vol. 6, 1694:18-24 (Bisbey-Kuehn). Mr. Copeland also testified in

support of the engine maintenance standards in the updated version of the Proposed Rule. Tr. Vol. 6, 1792:21-1793:10 (Copeland).

III. The record supports the catalytic converter inspection and maintenance requirements proposed by the NMED in Proposed 20.2.50.113(C)(3).

The Proposed Rule establishes inspection and maintenance requirements for the catalytic converters used to control emissions from engines at 20.2.50.113(C)(3). The Proposed Rule requires that catalytic converters be inspected and maintained according to manufacturer specifications, as defined in 20.2.50.112. NMED Rebuttal Exhibit 23, Proposed 20.2.50.113(C)(3). The GCA supports the catalytic converter inspection and maintenance requirements in proposed 20.2.50.113(C).

Brendan Filby submitted prefiled direct testimony on behalf of the GCA, marked GCA Exhibit 23. Mr. Filby has over 20 years of experience working with the emissions control devices used for the engines in the oil and gas industry that will be regulated by the Proposed Rule, and is the Chief Executive Officer of DCL America, Inc., a global leader in the design, manufacture, and implementation of engine emissions control systems. GCA Exhibit 23 (Filby Direct) at 2.

Mr. Filby testified regarding a potential conflict between the general control device inspection requirements in the earlier July 2021 draft of 20.2.50.113 (NMED Exhibit 41) and the specific requirement in the rule relating to the inspection and maintenance of catalytic converters used to control emissions from engines. GCA Exhibit 23 (Filby Direct) at 5. Mr. Filby stated that if the general control device inspection requirements were interpreted as requiring monthly physical inspections of catalytic converters, the proposed rule would result in onerous and unnecessary inspection work, as well as potential long-term negative impacts on catalysts. GCA Exhibit 23 (Filby Direct) at 5.

The Proposed Rule responded to the concerns raised by the GCA and Mr. Filby by specifying that catalytic converter inspection schedules should follow manufacturer specifications, and clarifying that the monthly inspection requirements in the Section 115 general monitoring rules for control devices are “visual” inspections and thus will not require a shutdown or physical disassembly of the catalytic converter. NMED Rebuttal Exhibit 23, Proposed 20.2.50.113(C)(3) and 20.2.50.115(B)(4). No party presented testimony opposing these changes, and the NMED’s witness testified in support of the updated control device inspection and operation requirements in the Proposed Rule. NMED Rebuttal Exhibit 1 (Bisbey-Kuehn and Palmer Rebuttal) at p. 42, lines 15-16; Tr. Vol. 6, 1694:25 to 1695:3 (Bisbey-Kuehn). The GCA presented Mr. Filby’s prefiled testimony during the hearing and represented that the changes reflected in the Proposed Rule in NMED Rebuttal Exhibit 23 addressed the GCA’s concerns. Tr. Vol. 6, 1900:13-1901:12 (Filby).

IV. The record supports the use of carbon monoxide as a surrogate pollutant for all engine emissions testing conducted pursuant to Proposed 20.2.50.113(C).

The Proposed Rule establishes emissions testing requirements for engines operated at least 500 hours per year at 20.2.50.113(C)(4). The testing is designed to demonstrate compliance with the Proposed Rule’s emissions standards for nitrogen oxides (NO_x), carbon monoxide (CO), and non-methane, non-ethane hydrocarbons (NMNEHC). NMED Rebuttal Exhibit 23, Proposed 20.2.50.113(C)(4); *see also* NMED Rebuttal Exhibit 23, Proposed 20.2.50.113(B)(2)-(3). The Proposed Rule allows for the results of emissions testing demonstrating compliance with the CO emission standard to be used as a surrogate for demonstrating compliance with the emission standard for NMNEHC – for emissions testing using a portable analyzer. NMED Rebuttal Exhibit 23, Proposed 20.2.50.113(C)(4)(i). The GCA supports the use of CO as surrogate for NMNEHC for all engine emissions testing conducted under the Proposed Rule, and not limiting the surrogate use to testing performed with a portable analyzer. The NMED supports this change, and has

incorporated the GCA's request in both its December 16, 2021 and January 18, 2022 versions of the proposed rule. The GCA requests that the Board adopt the version of 20.2.50.113(C)(4)(i) in the Department's December 16, 2021 and January 18, 2022 versions of the proposed rule, consistent with GCA Exhibit 35, extending the use of CO as a surrogate for NMNEHC for all engine emissions testing conducted under section 20.2.50.113(C)(4).

Randy Bartley submitted prefiled direct testimony on behalf of the GCA, marked GCA Exhibit 25. Mr. Bartley has over 20 years of experience relating to emissions testing of the engines in the oil and gas industry that will be regulated by the Proposed Rule, and is the Chief Executive Officer of B.enviroSAFE, LLC, an emissions testing company. GCA Exhibit 25 (Bartley Direct) at 2.

The Proposed Rule establishes both carbon monoxide (CO) and non-methane, non-ethane hydrocarbon (NMNEHC) emissions standards for engines, and requires periodic testing to demonstrate compliance with those standards. NMED Rebuttal Exhibit 23, Proposed 20.2.50.113(B)(2)&(3) and 20.2.50.113(C)(4). Mr. Bartley testified regarding engine emissions testing and how CO emissions data serves as a reliable surrogate for emissions test results for NMNEHC, and noted that the New Mexico Air Quality Bureau's permit template language allowed permit holders to use engine emissions test results of CO to demonstrate compliance with emissions standards for NMNEHCs. GCA Exhibit 25 (Bartley Direct) at 3-6.

The Proposed Rule responded to the concerns raised by the GCA and Mr. Bartley by allowing for the use of CO as a surrogate in engine emissions testing; however, other changes to the rule language limited the use of CO as a surrogate to emissions testing conducted with a portable analyzer. NMED Rebuttal Exhibit 23, Proposed 20.2.50.113(C)(4)(i). During the hearing, Mr. Bartley presented testimony supporting the use of CO as a surrogate for NMNEHC in all

engine emissions testing and not limiting its use to engine emissions tests performed with a portable analyzer. Tr. Vol. 6, 1797:12-1798:16 (Bartley). The GCA submitted its Exhibit 35 requesting the additional change to the rule language in proposed 20.2.50.113(C)(4)(i) to remove the restriction on the use of CO as a surrogate pollutant in engine emissions testing. During the hearing, the NMED's witness Ms. Bisbey-Kuehn stated that the Department supported the GCA's requested change to the rule language and the expanded use of CO as a surrogate for NMNEHC in engine emissions testing. Tr. Vol. 6, 1696:18-23 (Bisbey-Kuehn); *see also* Tr. Vol. 6, 1799:16-1800:5 (Bartley) (cross-examination by counsel for NMED stating that the NMED intended to make the requested change); *see also* NMED Rebuttal Exhibit 1 (Bisbey-Kuehn and Palmer Rebuttal) at p. 34, lines 8-10; and p. 42, line 21, to p. 43, line 3. No party to the hearing presented testimony opposing Mr. Bartley's testimony or the GCA's requested change to the engine emissions testing rules.

Consistent with its hearing testimony, the NMED incorporated the GCA's request to extend the use of CO as a surrogate for NMNEHC for all engine emissions testing (as shown in GCA Exhibit 35) into its post-hearing drafts of proposed rule. The GCA requests that the Board adopt proposed 20.2.50.113(C)(4)(i) as presented in the December 16, 2021 and January 18, 2022 versions of the proposed rule.

V. The record supports the NMED's decision to eliminate the equipment monitoring tag (EMT) provisions from Proposed 20.2.50.112(A).

The Proposed Rule requires that owners and operators subject to the requirements of 20.2.50 develop and implement a database system capable of storing compliance information for the sources subject to the Proposed Rule. NMED Rebuttal Exhibit 23, Proposed 20.2.50.112(A)(3). In updating the Proposed Rule in response to the testimony filed by witnesses for the GCA and other parties, the NMED amended this provision (and other sections of the Proposed Rule) to

eliminate a requirement to affix physical Equipment Monitoring Tags (EMTs) on each source subject to the Proposed Rule. The GCA supports the NMED's decision to eliminate the EMT requirement from the Proposed Rule, and supports the compliance demonstration requirements of Proposed 20.2.50.112(A)(3) in NMED Rebuttal Exhibit 23.

Mark Copeland, the Director of Field Operations Support and Service for GCA member Archrock, submitted prefiled direct testimony on behalf of the GCA addressing the proposed rule's compliance demonstration and EMT requirements. GCA Exhibit 15 (Copeland Direct) at 8-22. Mr. Copeland testified that the EMT requirements in the July 2021 draft of 20.2.50 (NMED Exhibit 41) were unnecessarily complex and burdensome, and identified a number of challenges that the tagging requirement would create for the owners and operators of the compressor packages represented by the GCA. GCA Exhibit 15 (Copeland Direct) at 8-20. He further testified regarding the other compliance demonstration requirements in the Proposed Rule, and that the NMED would have ample compliance demonstration information from owners and operators without the additional cost and burdens associated with the EMT requirement. GCA Exhibit 15 (Copeland Direct) at 20-22.

The Proposed responded to the concerns raised by Mr. Copeland and other parties regarding the EMT compliance demonstration requirements. NMED Rebuttal Exhibit 23, Proposed 20.2.50.112(A)(3). NMED's witnesses testified in support of the Proposed Rule's updated compliance demonstration requirements in prefiled rebuttal testimony and during the hearing. *See* NMED Rebuttal Exhibit 1 (Bisbey-Kuehn and Palmer Rebuttal) at p. 23, lines 3-6; Tr. Vol. 5, 1357:6-17 (Bisbey-Kuehn). Mr. Copeland testified during the hearing in support of the Proposed Rule's updated compliance demonstration provisions and that the removal of the

equipment tagging requirement had addressed the GCA's concerns with that part of the earlier proposed rule. Tr. Vol. 5, 1455:5-1456:9 (Copeland).

VI. The record supports the requirements relating to the tagging of leaking components found through audio, visual, or olfactory (AVO) inspections proposed by the NMED in Proposed 20.2.50.116(C).

The Proposed Rule requires that the owners and operators of a number of sources conduct fugitive emissions monitoring to detect and repair equipment leaks. NMED Rebuttal Exhibit 23, Proposed 20.2.50.116(A). In updating the Proposed Rule in response to the testimony filed by witnesses for the GCA and other parties, the NMED amended the default requirements for leaks discovered by an audio, visual, or olfactory (AVO) inspection to eliminate a requirement to place a tag on any leak discovered by AVO inspection within three calendar days. *See* NMED Rebuttal Exhibit 1 (Bisbey-Kuehn and Palmer Rebuttal) at p. 59, lines 3-5. The change to the AVO tagging requirement reflected in NMED Rebuttal Exhibit 23 did not eliminate the requirement to place a tag on leaking components discovered through AVO inspection that are not repaired at the time of discovery, nor did it eliminate the obligation to repair those leaking components. *See* NMED Rebuttal Exhibit 23, Proposed 20.2.50.116(C)(1)(d), (E)(1). The GCA supports the NMED's decision to eliminate the three-day tagging deadline from the Proposed Rule, and supports the AVO fugitive monitoring and repair requirements of Proposed 20.2.50.116(C) and (E) in NMED Rebuttal Exhibit 23.

Mark Copeland, the Director of Field Operations Support and Service for GCA member Archrock, submitted prefiled direct testimony on behalf of the GCA addressing the proposed rule's requirements relating to the tagging of leaking components discovered by AVO inspection. GCA Exhibit 15 (Copeland Direct) at 22-25. Mr. Copeland testified that a requirement in the July 2021 draft of 20.2.50.116(C)(1)(e) (NMED Exhibit 41) to affix a tag to components discovered leaking by AVO inspection within three calendar days could present significant compliance challenges,

particularly for GCA members who are responsible for gas compressor sites that may be remote and unmanned. GCA Exhibit 15 (Copeland Direct) at 23. The GCA requested additional time to affix tags to leaking components, but did not seek additional time to attempt to repair those components.

The Proposed Rule responded to the concerns raised by Mr. Copeland by eliminating the requirement to affix tags to leaking components within three calendar days. NMED Rebuttal Exhibit 23, Proposed 20.2.50.116(C)(1)(e) & 20.2.50.116(E). NMED's witnesses testified in support of the updated compliance demonstration requirements in the Proposed Rule during the hearing. *See* NMED Rebuttal Exhibit 1 (Bisbey-Kuehn and Palmer Rebuttal) at p. 59, lines 3-5. The GCA presented Mr. Copeland's prefiled testimony on this topic during the hearing and represented that the changes reflected in the Proposed Rule in NMED Rebuttal Exhibit 23 addressed the GCA's concerns. Tr. Vol. 8, 2513:18-2514:8 (Copeland).

VII. The record supports the NMED's proposed deadline for submitting compliance database reports under Proposed 20.2.50.112(D).

As stated above, the Proposed Rule requires that owners and operators subject to the requirements of 20.2.50 develop and implement a database system capable of storing compliance information for the sources subject to the Proposed Rule. NMED Rebuttal Exhibit 23, Proposed 20.2.50.112(A)(3). The Proposed Rule further requires that the database be capable of generating a Compliance Database Report ("CDR") from the information stored in the database. NMED Rebuttal Exhibit 23, Proposed 20.2.50.112(A)(5). In updating the Proposed Rule in response to the testimony filed by witnesses for the GCA and other parties, the NMED amended section 112(D) to change the deadline for submitting a CDR upon the request of the Department from 24 hours to three business days. NMED Rebuttal Exhibit 23, Proposed 20.2.50.112(D). The GCA

supports the NMED's decision to require a CDR to be submitted within three business days of a request from the Department in 20.2.50.112(D) in NMED Rebuttal Exhibit 23.

Mark Copeland, the Director of Field Operations Support and Service for GCA member Archrock, submitted prefiled direct testimony on behalf of the GCA addressing the proposed rule's deadline to submit a compliance demonstration report upon the request of the NMED. GCA Exhibit 15 (Copeland Direct) at 21. Mr. Copeland testified that a requirement in the July 2021 draft of 20.2.50.112(D) (NMED Exhibit 41) to submit the report within 24 hours of any request from the Department could present significant compliance challenges. GCA Exhibit 15 (Copeland Direct) at 21. The GCA requested that the deadline for submitting a compliance report be extended from 24 hours to three business days, which would alleviate its compliance concerns associated with 24-hour reporting while ensuring prompt submittal of the requested compliance information to the NMED.

The Proposed Rule responded to the concerns raised by Mr. Copeland and the GCA by requiring that a compliance database report be provided to the Department within three business days of the request. NMED Rebuttal Exhibit 23, Proposed 20.2.50.112(D). NMED's witness testified in support of the updated compliance database report submittal requirement in the Proposed Rule during the hearing. *See* NMED Rebuttal Exhibit 1 (Bisbey-Kuehn and Palmer Rebuttal) at p. 27, lines 4-8. Mr. Copeland testified during the hearing in support of the Proposed Rule's updated compliance demonstration provisions and stated that the NMED's revisions had addressed his concerns regarding Section 112 of the proposed rule. Tr. Vol. 5, 1458:19-1459:3 (Copeland).

VIII. The record supports the NMED’s decision not to add semiannual deviation reporting requirements to Proposed 20.2.50.112.

The Proposed Rule contains extensive compliance demonstration requirements. Owners or operators must: conduct regular monitoring of sources subject to the Proposed Rule in accordance with regulatory requirements; keep records of that monitoring; develop and implement a database system capable of storing that compliance demonstration information; conduct an annual compliance evaluation of each source subject to the Proposed Rule; and submit a Compliance Database Report (“CDR”) to the NMED upon request of the department, within three business days. NMED Rebuttal Exhibit 23, Proposed 20.2.50.112(A)-(D). One party to the hearing, WildEarth Guardians, requested that the Department add an additional requirement that owners or operators submit “records of all monitoring events documenting deviations” to the Department on a semi-annual basis. WildEarth Guardians Exhibit 1. The GCA supports the NMED’s decision not to add the requested semiannual deviation reporting obligation to the extensive compliance demonstration requirements already included in Proposed 20.2.50.112.

Mark Copeland, the Director of Field Operations Support and Service for GCA member Archrock, submitted prefiled rebuttal direct testimony on behalf of the GCA, opposing WildEarth Guardians’ requested semiannual deviation reporting requirement. GCA Exhibit 30 (Copeland Rebuttal). Mr. Copeland testified that the Department and the Board should reject the proposed additional requirements, for a number of reasons: imposing deviation self-reporting obligations under a broadly applicable state rule like proposed 20.2.50 is unprecedented; the kind of deviation self-reporting sought by WildEarth Guardians has only been imposed on Title V “major sources” and never on minor sources; WildEarth Guardians’ requested reporting program would impose significant burdens on the regulated community; and the Proposed Rule already includes

significant (and sufficient) compliance demonstration requirements. GCA Exhibit 30 (Copeland Rebuttal) at 2-7.

The Department did not add WildEarth Guardians' requested minor-source deviation self-reporting to the Proposed Rule when it issued the updated version of the rule on September 16, 2021. NMED witness Mr. Baca explained during the hearing that the Department opposed the WildEarth Guardians' suggested deviation reporting requirement, stating that it would not be appropriate because it would introduce significant confusion for the regulated community, likely overwhelm the NMED with unsolicited reporting, and produce no public health benefit. Tr. Vol. 5, 1590:25 to 1593:13 (Baca). GCA witness Mr. Copeland repeated his concerns with the WildEarth Guardians proposal when presenting his rebuttal testimony during the hearing itself, and expressed his support for Section 112 of the Proposed Rule in NMED Rebuttal Exhibit 23 and the Department's decision not to include WildEarth Guardians requested minor-source deviation reporting. Tr. Vol. 5, 1456:24-1457:23 and 1458:23-1459:3 (Copeland).

CONCLUSION

As described above, the Proposed Rule—again, the September 16, 2021 version of proposed 20.2.50, NMED Rebuttal Exhibit 23—addressed the GCA's chief concerns with the requirements of the earlier version of the proposed rule. At this stage in the proceeding, the GCA is seeking only one change to the Proposed Rule language in NMED Rebuttal Exhibit 23: the minor change described in Section IV above, and supported by the Department, that will extend the use of carbon monoxide as a surrogate pollutant for all engine emissions testing performed under the Proposed Rule. The NMED has already made that change to the updated drafts of the rule language that it released on December 16, 2021 and January 18, 2022. The record in this matter supports that change and the other changes that the NMED made in response to the GCA's

concerns, and the GCA supports the provisions of the Proposed Rule that will regulate its compressor engines and associated equipment.

The GCA thanks the Hearing Officer for managing an orderly hearing, appreciates the efforts of all to ensure completion of the hearing within the scheduled two weeks, and looks forward to the remaining steps leading to the adoption of these regulations of importance to New Mexicans and the stakeholders participating herein.

PROPOSED STATEMENT OF REASONS

20.2.50.7 NMAC – Definitions (Definition of “Construction”)

1. The Department proposed a new definition of “construction” in 20.2.50.7(J) that would define “construction” as “fabrication, erection, installation or relocation of a stationary source, including but not limited to temporary installations and portable stationary sources.” NMED Exhibit 41, p.2.

2. The GCA objected to the proposed definition on the grounds that the relocation of an existing compressor engine, where the engine is not otherwise rebuilt or reconstructed, should not be considered “construction” of that engine, and should not provide a basis for converting the engine from an existing engine into a new engine that is subject to the proposed rule’s more-stringent emissions standards for new engines. GCA Exhibit 12 (Dutton Direct) at 13; GCA Exhibit 9 (Sheldon Direct) at 19.

3. The Department considered the rationale and arguments put forward by the GCA’s direct written testimony and proposed an updated definition of “construction” in 20.2.50.7(J) that would define “construction” as “fabrication, erection, or installation of a stationary source, including but not limited to temporary installations and portable stationary sources, but does not include relocations or like-kind replacements of existing equipment.” NMED Rebuttal Exhibit 23, p.2.

4. Clean Air Advocates opposed the proposed change to the definition of “construction,” but acknowledged that the Department’s proposed emissions standards for existing engines would prohibit the operation of high-polluting existing engines in New Mexico, even if relocation of an existing engine was not considered the construction of a new source. Tr. Vol. 9, 2984:25-2985:10 (Orozco).

5. Based on the weight of the evidence, the Board finds that the Department’s proposed definition of “construction” to be well-taken. For this reason, the Board adopts the definition of “construction” in 20.2.50.7(J) as proposed by the Department in NMED Rebuttal Exhibit 23.

20.2.50.112 NMAC – General Provisions (Equipment Monitoring Tags)

6. The Department proposed that owners and operators subject to the requirements of 20.2.50 NMAC develop and maintain a database system capable of storing compliance information for the sources subject to the proposed rule. NMED Exhibit 41, p.5. In addition, the Department proposed that owners and operators affix an Equipment Monitoring Tag (EMT) to all sources subject to requirements under 20.2.50 NMAC. NMED Exhibit 41, p.5. The EMT had to be physically affixed to each source, with either RFID, QR, or bar code format that provided a unique identifier for the source and provided the information about that source specified in 20.2.50.112(A)(3). NMED Exhibit 41, p.5.

7. The GCA objected to the proposed requirement to affix EMTs to all sources subject to the rule on the grounds that the tagging requirement was unnecessarily complex and burdensome, and that the compliance demonstration, recordkeeping, database, and database reporting requirements in 20.2.50 would provide ample compliance demonstration information to the Department without the additional cost and burdens associated with the EMT requirement. GCA Exhibit 15 (Copeland Direct) at 8-22.

8. The Department considered the rationale and arguments put forward by the GCA's direct written testimony and proposed an updated version of 20.2.50.112 that maintained the compliance database and Compliance Database Report (CDR) requirements, but omitted the EMT requirements included in the earlier draft of the proposed rule. NMED Rebuttal Exhibit 23, p.6.

9. Based on the weight of the evidence, the Board agrees with the Department's decision to remove the EMT requirements from the 20.2.50, and finds the Department's proposed compliance recordkeeping and database requirements in 20.2.50.112 to be well-taken. For this reason, the Board adopts the compliance recordkeeping and database requirements in 20.2.50.112 as proposed by the Department in NMED Rebuttal Exhibit 23.

20.2.50.112 NMAC – General Provisions (Deadline for CDR Submittal)

10. The Department proposed in 20.2.50.112(D) that an owner or operator must electronically submit a compliance database report (CDR) with the requested information for each source subject to the NMED's request within 24 hours of a request by the Department.

11. The GCA objected to the proposed requirement that a the CDR be submitted within 24 hours of the request, on the grounds that a 24-hour reporting deadline would present significant compliance challenges and that a deadline to submit the CDR within three business days of the request would largely alleviate those challenges while ensuring that the CDR is promptly generated and submitted to the Department. GCA Exhibit 15 (Copeland Direct) at 21.

12. The Department considered the rationale and arguments put forward by the GCA's direct written testimony and proposed an updated version of 20.2.50.112(D) that an owner or operator must electronically submit a CDR with the requested information for each source subject to the NMED's request within three business days of a request by the Department. NMED Rebuttal Exhibit 23, at p.8.

13. Based on the weight of the evidence, the Board agrees with the Department's decision to require that an owner or operator shall, within three business days of a request by the Department, provide the requested information by electronically submitting a CDR or by other means and formats specified by the Department in its request.

20.2.50.112 NMAC – General Provisions (Deviation Reporting)

14. WildEarth Guardians requested that the Department add a requirement to 20.2.50.112 that owners and operators subject to 20.2.50 submit “records of all monitoring events documenting deviations” to the Department on a semi-annual basis. WildEarth Guardians Exhibit 1.

15. The GCA objected to WildEarth Guardians' requested semiannual deviation reporting requirement on the grounds that the proposed rule already includes significant monitoring, testing, recordkeeping, and reporting requirements that are sufficient for demonstrating compliance with 20.2.50, that the compliance self-reporting sought by WildEarth Guardians has only been imposed on “major sources” of air pollutants and not in a state rule that is generally applicable to minor sources, and that WildEarth Guardians' proposal would impose significant additional burdens on the regulated community by requiring the self-reporting of information already available to the Department. GCA Exhibit 30 (Copeland Rebuttal) at 2-7.

16. The Department considered the rationale and arguments put forward by the GCA's written rebuttal testimony and did not include WildEarth Guardians' requested semi-annual deviation reporting requirement in the updated version of 20.2.50.112. NMED Rebuttal Exhibit 23, pp.6-8.

17. NMED witness Mr. Baca explained during the hearing that the Department opposed the WildEarth Guardians' suggested deviation reporting requirement because it would introduce significant confusion for the regulated community, likely overwhelm the NMED with unsolicited reporting, and produce no public health benefit. Tr. Vol. 5, 1590:25 to 1593:13 (Baca).

18. Based on the weight of the evidence, the Board agrees with the Department's decision not to add semi-annual deviation reporting requirements to 20.2.50.112, and finds the Department's proposed compliance recordkeeping and database requirements in 20.2.50.112 to be well-taken. For this reason, the Board adopts the compliance recordkeeping and database requirements in 20.2.50.112 as proposed by the Department in NMED Rebuttal Exhibit 23.

20.2.50.113 NMAC – Engines and Turbines (NOx Standard for Existing Engines)

19. The Department proposed emission standards for natural gas-fired spark-ignition engines that are constructed, reconstructed, or installed before the effective date of new 20.2.50 in 20.2.50.113(B)(2), Table 1. NMED Exhibit 41, p.7.

20. The GCA objected to the proposed emission standards for oxides of nitrogen (NOx) from existing engines on the grounds that the assumptions underlying the proposed standards were faulty. GCA Exhibit 12 (Dutton Direct) at 7. A GCA witness testified that selective catalytic reduction (SCR) is not an economically feasible control option for most existing engines, that low emissions combustion (LEC) technology could not be broadly retrofit to existing engines, and that many existing engines already employ LEC technology yet are not able to achieve the NOx emissions standard proposed by the Department in NMED Exhibit 41. GCA Exhibit 12 (Dutton Direct) at 7-10; GCA Exhibit 28 (Dutton Rebuttal) at 3-10.

21. The Department considered the rationale and arguments put forward by the GCA's direct written and rebuttal testimony and proposed an updated version of 20.2.50.113(B)(2), Table 1 that established additional size categories and proposed new NOx emissions standards for existing engines. NMED Rebuttal Exhibit 23, p.9.

22. A GCA witness testified that the proposed NOx emission standards for existing engines in the updated version of 20.2.50.113(B)(2), Table 1 are technically feasible and economically

reasonable for the majority of engines operated by GCA member companies. Tr. Vol. 6, 1756:9-19 (Dutton).

23. The proposed NOx emission standards for existing engines in the updated version of 20.2.50.113(B)(2), Table 1 are consistent with the NOx emissions standards in Pennsylvania general permit GP-5 limit for engines installed between 1997 and 2013. GCA Exhibit 28 (Dutton Rebuttal) at 4; NMED Exhibit 37 (Pennsylvania Permit GP-5) at 12.

24. Clean Air Advocates requested that the Department adopt a different NOx emission standard for existing engines, but acknowledged that the Department's proposed NOx emissions standards for existing engines would prohibit the operation of high-polluting existing engines in New Mexico. Tr. Vol. 9, 2984:25-2985:10 (Orozco).

25. The Department considered the rationale and arguments put forward by the parties and determined that it would not incorporate the NOx emissions standard requested by Clean Air Advocates in either the December 16, 2021 or January 18, 2022 versions of the proposed rule.

26. Based on the weight of the evidence, the Board finds that the Department's proposed NOx emissions standards for existing engines to be well-taken. For this reason, the Board adopts the emissions standards for existing natural gas-fired spark-ignition engines in 20.2.50.113(B)(2), Table 1 as proposed by the Department in NMED Rebuttal Exhibit 23.

20.2.50.113 NMAC – Engines and Turbines (NOx Standard for New Engines)

27. The Department proposed emission standards for natural gas-fired spark-ignition engines that are constructed, reconstructed, or installed after the effective date of new 20.2.50 in 20.2.50.113(B)(3), Table 2. NMED Exhibit 41, p.7.

28. The GCA objected to the proposed emission standards for oxides of nitrogen (NOx) from new engines on the grounds that the assumptions underlying the proposed standards were faulty.

GCA Exhibit 12 (Dutton Direct) at 6, 15; GCA Exhibit 9 (Sheldon Direct) at 3-4, 14-18. A GCA witness testified that selective catalytic reduction (SCR) is not an economically feasible control option for most new engines, and that the size categories proposed in NMED Exhibit 41 were arbitrary and established a NOx standard that was technically infeasible for engines below 1,875 horsepower, despite the application of low emissions combustion (LEC) technology. GCA Exhibit 12 (Dutton Direct) at 6-15. A second GCA witness testified that NMED Exhibit 41 would establish NOx emissions standards that were lower than what is achievable for many new engines available in the market. GCA Exhibit 9 (Sheldon Direct) at 14-18.

29. The Department considered the rationale and arguments put forward by the GCA's direct written and rebuttal testimony and proposed an updated version of 20.2.50.113(B)(3), Table 2 that established additional size categories and proposed updated NOx emissions standards for new engines. NMED Rebuttal Exhibit 23, p.9.

30. GCA witnesses testified that the proposed NOx emission standards and for new engines in the updated version of 20.2.50.113(B)(3), Table 2 are technically feasible and consistent with the emissions performance of new engines available on the market. Tr. Vol. 6, 1749:3-10 and 1749:20 to 1750:3 (Sheldon); Tr. Vol. 6, 1756:9-19 (Dutton).

31. Based on the weight of the evidence, the Board finds that the Department's proposed NOx emissions standards for new engines to be well-taken. For this reason, the Board adopts the emissions standards for new natural gas-fired spark-ignition engines in 20.2.50.113(B)(3), Table 2 as proposed by the Department in NMED Rebuttal Exhibit 23.

20.2.50.113 NMAC – Engines and Turbines (Distinguishing Existing and New Engines)

32. The Department proposed separate emission standards for new and existing natural gas-fired spark-ignition engines and distinguished between them based on whether the engine was

“constructed, reconstructed, or installed” before or after the effective date of new 20.2.50. NMED Exhibit 41, p.7.

33. The Department also proposed a new definition of “construction” in 20.2.50.7(J) that would define “construction” as “fabrication, erection, installation or relocation of a stationary source, including but not limited to temporary installations and portable stationary sources.” NMED Exhibit 41, p.2.

34. The GCA objected to the use of the date that an engine is “installed” for purposes of determining whether an engine is a new engine or an existing engine under 20.2.50 NMAC on the grounds that the relocation of an existing compressor engine, where the engine is installed in a new location but not otherwise reconstructed, should not provide a basis for converting the engine from an existing engine into a new engine that is subject to the proposed rule’s more-stringent emissions standards for new engines. For that same reason, the GCA objected to the proposed definition of “construction” in NMED Exhibit 41. GCA Exhibit 12 (Dutton Direct) at 12-13; GCA Exhibit 9 (Sheldon Direct) at 19-20.

35. The Department considered the rationale and arguments put forward by the GCA’s direct written testimony and proposed updated engine emissions standards tables that base the applicability of emissions standards for new or existing engines on the date that an engine is “constructed or reconstructed.” NMED Rebuttal Exhibit 23, p.9. At the same time, the NMED proposed an updated definition of “construction” in 20.2.50.7(J) that would define “construction” as “fabrication, erection, or installation of a stationary source, including but not limited to temporary installations and portable stationary sources, but does not include relocations or like-kind replacements of existing equipment.” NMED Rebuttal Exhibit 23, p.2.

36. Clean Air Advocates opposed the proposed change to the definition of “construction,” but acknowledged that the Department’s proposed emissions standards for existing engines would prohibit the operation of high-polluting existing engines in New Mexico, even if relocation of an existing engine was not considered the construction of a new source. Tr. Vol. 9, 2984:25-2985:10 (Orozco).

37. The Department considered the rationale and arguments put forward by the parties and determined that it would not make the change to the definition of “construction” requested by Clean Air Advocates in either the December 16, 2021 or January 18, 2022 versions of the proposed rule.

38. Based on the weight of the evidence, the Board finds that the Department’s decision to use the date that an engine is constructed or reconstructed to determine the applicability of emissions standards for new or existing engines to be well-taken. For this reason, the Board adopts the use of the date that an engine is “constructed or reconstructed,” along with the definition of “construction” in 20.2.50.7(J), to determine the applicability of engine emission standards in 20.2.50.113(B)(2), Table 1 and 20.2.50.113(B)(3), Table 2, as proposed by the Department in NMED Rebuttal Exhibit 23.

20.2.50.113 NMAC – Engines and Turbines (Maintenance and Repair)

39. The Department proposed in 20.2.50.113(C)(1) that maintenance and repair work for a spark-ignition engine, compression-ignition engine, and stationary combustion turbine “shall meet the minimum manufacturer recommended maintenance schedule.” NMED Exhibit 41, p.8.

40. The GCA objected to the proposed requirement that all engine maintenance meet the minimum manufacturer recommended maintenance schedule, on the grounds that the proposed requirement would be burdensome, costly, and unnecessarily constrain the owners and operators

of engines in the compression services industry. GCA Exhibit 15 (Copeland Direct) at 3. A GCA witness testified that the minimum manufacturer recommended maintenance schedule is a one-size-fits-all recommendation that fails to account for the actual service and operating conditions of a particular engine, and that the applicable federal air rules allow for engine inspection and maintenance schedules that have been tailored to a particular engine's service and operation, consistent with good air pollution control practice for minimizing emissions. GCA Exhibit 15 (Copeland Direct) at 3-7.

41. The Department considered the rationale and arguments put forward by the GCA's direct written testimony and proposed an updated version of 20.2.50.113(C)(1) that references "manufacturer recommended maintenance schedule" as a defined term in 20.2.50.112 NMAC. The Department added the following statement to 20.2.50.112(A)(1): "When used in this Part, the term manufacturer specifications means either the original equipment manufacturer (or successor) emissions related design specifications, maintenance practices or schedules, or an alternative set of specifications, maintenance practices and schedules sufficient to operate and maintain such sources in good working order, which have been approved by qualified maintenance personnel based on engineering principles and field expertise." NMED Rebuttal Exhibit 23, at p.6. The Department also added a new subparagraph (2) stating that "[m]aintenance conducted consistent with an applicable NSPS or NESHAP requirement shall be deemed to be in compliance with 20.2.50.113(C)(1)." NMED Rebuttal Exhibit 23, at p.12.

42. A GCA witness testified that the updated engine maintenance and repair requirements would allow owners and operators to use the effective engine maintenance plans that they have developed and utilize in compliance with the existing federal rules. Tr. Vol. 6, 1792:24 to 1793:6 (Copeland).

43. Based on the weight of the evidence, the Board agrees with the Department's decision to specify that engine maintenance and repair schedules meet manufacturer recommendations or an alternate set of maintenance practices and schedules based on engineering principles and field experience that are sufficient to operate and maintain the engine in good working order, and finds the Department's proposed engine maintenance and repair requirements in 20.2.50.113(C)(1) and (2) to be well-taken. For this reason, the Board adopts the engine maintenance and repair requirements in 20.2.50.113(C)(1) and (2) as proposed by the Department in NMED Rebuttal Exhibit 23.

20.2.50.113 NMAC – Engines and Turbines (Catalytic Converter Maintenance)

44. The Department proposed in 20.2.50.113(C)(2) that catalytic converters shall be maintained according to manufacturer or supplier recommended maintenance schedules. NMED Exhibit 41, p.8. At the same time, the Department proposed in the general control device requirements of 20.2.50.115(B)(4) that an owner or operator shall inspect control devices used to comply with 20.2.50 at least monthly to ensure proper maintenance and operation. NMED Exhibit 41, p.12.

45. The GCA objected to the proposed requirement that catalytic converters, which are used to control emissions from engines subject to 20.2.50, be subject to required monthly inspections, on the grounds that monthly inspections of the catalytic converters would be too frequent, unnecessary to ensure continued performance of the catalytic converters, and potentially have long-term negative impacts on the catalyst that is used to control emissions. GCA Exhibit 23 (Filby Direct) at 5.

46. The Department considered the rationale and arguments put forward by the GCA's direct written testimony and proposed an updated version of 20.2.50.113(C)(3) specifying that catalytic

converters are to be inspected and maintained according to manufacturer specifications. NMED Rebuttal Exhibit 23, at p.12. The Department further clarified that the required monthly inspection for all control devices required by 20.2.50.115(B)(3) is a visual inspection to identify defects, leaks, and releases, and to ensure proper operation. NMED Rebuttal Exhibit 23, at p.16.

47. Based on the weight of the evidence, the Board agrees with the Department's decision to specify that catalytic converters are to be inspected and maintained according to manufacturer specifications, and to clarify that the required monthly inspection for all control devices required by 20.2.50.115(B)(3) is a visual inspection to identify defects, leaks, and releases, and to ensure proper operation. For this reason, the Board adopts the catalytic converter inspection and maintenance requirements in 20.2.50.113(C)(3) as proposed by the Department in NMED Rebuttal Exhibit 23.

20.2.50.113 NMAC – Engines and Turbines (Engine Emissions Testing)

48. The Department proposed in 20.2.50.113(C)(3) that engines operated 500 hours per year or more conduct initial and annual emissions tests to demonstrate compliance with the emissions standards for NO_x, carbon monoxide (CO), and non-methane, non-ethane hydrocarbons (NMNEHC). NMED Exhibit 41, p.8.

49. The GCA requested that the Department add a subparagraph allowing for emissions test results for CO to be used as a surrogate for demonstrating compliance with the emissions standard for NMNEHC, on the grounds that CO is a reliable surrogate for engine emissions test results for NMNEHC and that the New Mexico Air Quality Bureau's permit template language allows permit holders to use engine emissions test results of CO to demonstrate compliance with emissions standards for NMNEHC. GCA Exhibit 25 (Bartley Direct) at 3-6.

50. The Department considered the rationale and arguments put forward by the GCA's direct written testimony and proposed an updated version of 20.2.50.113(C)(4)(i) specifying that for emissions testing using a portable analyzer, the results of emissions testing demonstrating compliance with the emission standard for CO may be used as a surrogate to demonstrate compliance with the emission standard for NMNEHC. NMED Rebuttal Exhibit 23, at p.13.

51. Following its review of NMED Rebuttal Exhibit 23, the GCA requested that the Department amend new subparagraph 20.2.50.113(C)(4)(i) to allow for the use of CO as a surrogate for demonstrating compliance with the emissions standard for NMNEHC for all emissions testing, on the grounds that CO serves as a reliable surrogate for NMNEHC emissions from engines for all types of emissions tests, and not only tests using a portable analyzer. Tr. Vol. 6, 1797:12-1798:16 (Bartley). A witness for the Department stated that the Department supported the expanded use of CO as a surrogate and the GCA's requested change to 20.2.50.113(C)(4)(i) to allow for the use of CO as a surrogate for demonstrating compliance with the emissions standard for NMNEHC for all emissions testing. Tr. Vol. 6, 1696:18-23 (Bisbey-Kuehn).

52. The Department considered the rationale and arguments put forward by the GCA's direct written testimony and on December 16, 2021, and again on January 18, 2022, issued updated versions of 20.2.50.113(C)(4)(i) specifying that the results of emissions testing demonstrating compliance with the emission standard for CO may be used as a surrogate to demonstrate compliance with the emission standard for NMNEHC for all emissions testing.

53. Based on the weight of the evidence, the Board agrees with the Department's decision to specify that the results of engine emissions testing demonstrating compliance with the emission standard for CO may be used as a surrogate to demonstrate compliance with the emission standard

for NMNEHC. For this reason, the Board adopts the engine emissions testing requirements in 20.2.50.113(C)(4)(i) as last proposed by the Department on January 18, 2022.

20.2.50.116 NMAC – Equipment Leaks and Fugitive Emissions (Tagging AVO Leaks)

54. The Department proposed in 20.2.50.116(C)(1)(e) that a leaking component discovered by an audio, visual, and olfactory (AVO) inspection shall be tagged with a visible tag and reported to management or their designee within three calendar days. NMED Exhibit 41, p.19.

55. The GCA objected to the proposed requirement that a tag be affixed to a leaking component discovered by AVO inspection within three calendar days, on the grounds that a three-day deadline to affix a tag could present significant compliance challenges for GCA companies that are responsible for providing gas compression services; the sites are often quite remote and are manned most frequently by the customers' personnel. GCA Exhibit 15 (Copeland Direct) at 22-23.

56. The Department considered the rationale and arguments put forward by the GCA's direct written testimony and proposed an updated version of 20.2.50.116(C)(1) eliminating the requirement to place a visible tag on a leaking component within three calendar days and directing that any such leak be repaired in accordance with 20.2.50.116(E) if not repaired at the time of discovery. NMED Rebuttal Exhibit 23, at p.19.

57. Based on the weight of the evidence, the Board agrees with the Department's decision to specify that any leak discovered by AVO inspection must be repaired in accordance with 20.2.50.116(E) if not repaired at the time of discovery.

Respectfully Submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on January 20, 2022, a true and correct copy of the foregoing was served via electronic mail to the Hearing Officer and the following:

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**MODRALL, SPERLING, ROEHL, HARRIS
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By: /s/ Stuart R. Butzier

TITLE 20 ENVIRONMENTAL PROTECTION
CHAPTER 2 AIR QUALITY (STATEWIDE)
PART 50 OIL AND GAS SECTOR – OZONE PRECURSOR POLLUTANTS

20.2.50.1 ISSUING AGENCY: Environmental Improvement Board.
[20.2.50.1 NMAC – N, XX/XX/2021]

20.2.50.2 SCOPE: This Part applies to sources located within areas of the state under the board's jurisdiction that, as of the effective date of this Part or anytime thereafter, are causing or contributing to ambient ozone concentrations that exceed ninety-five percent of the national ambient air quality standard for ozone, as measured by a design value calculated and based on data from one or more department monitors. As of the effective date, sources located in the following counties of the state are subject to this Part: Chaves, Dona Ana, Eddy, Lea, Rio Arriba, Sandoval, San Juan, and Valencia.

A. If, at any time after the effective date of this Part, sources in any other area(s) of the state not previously specified are determined to be causing or contributing to ambient ozone concentrations that exceed ninety-five percent of the national ambient air quality standard for ozone, as measured by a design value calculated by the U.S. Environmental Protection Agency based on data from one or more department monitors, the department shall petition the Board to amend this Part to incorporate such areas.

(1) The notice of proposed rulemaking shall be published no less than one-hundred and eighty (180) days before sources in the affected areas will become subject to this Part, and shall include, in addition to the requirements of the Board's rulemaking procedures at 20.1.1.301 NMAC:

(a) a list of the areas that the department proposed to incorporate into this Part, and the date upon which the sources in those areas will become subject to this Part; and

(b) proposed implementation dates, consistent with the time provided in the phased implementation schedules provided for throughout this Part, for sources within the areas subject to the proposed rulemaking to come into compliance with the provisions of this Part.

(2) In any rulemaking pursuant to this Section, the Board shall be limited to consideration of only those proposed changes necessary to incorporate other areas of the state into this Part.

B. Once a source becomes subject to this Part based upon its potential to emit, all requirements of this Part that apply to the source are irrevocably effective unless the source obtains a federally enforceable limit on the potential to emit that is below the applicability thresholds established in this Part, or the relevant section contains a threshold below which the requirements no longer apply.

[20.2.50.2 NMAC – N, XX/XX/2021]

20.2.50.3 STATUTORY AUTHORITY: Environmental Improvement Act, Section 74-1-1 to 74-1-16 NMSA 1978, including specifically Paragraph (4) and (7) of Subsection A of Section 74-1-8 NMSA 1978, and Air Quality Control Act, Sections 74-2-1 to 74-2-22 NMSA 1978, including specifically Subsections A, B, C, D, F, and G of Section 74-2-5 NMSA 1978 (as amended through 2021).

[20.2.50.3 NMAC - N, XX/XX/2021]

20.2.50.4 DURATION: Permanent.

[20.2.50.4 NMAC - N, XX/XX/2021]

20.2.50.5 EFFECTIVE DATE: Month XX, 2022, except where a later date is specified in another Section.
[20.2.50.5 NMAC - N, XX/XX/2021]

20.2.50.6 OBJECTIVE: The objective of this Part is to establish emission standards for volatile organic compounds (VOC) and oxides of nitrogen (NO_x) for oil and gas production, processing, compression, and transmission sources.

[20.2.50.6 NMAC - N, XX/XX/2021]

20.2.50.7 DEFINITIONS: In addition to the terms defined in 20.2.2 NMAC - Definitions, as used in this Part, the following definitions apply.

A. "Auto-igniter" means a device that automatically attempts to relight the pilot flame of a control device in order to combust VOC emissions, or a device that will automatically attempt to combust the VOC emission stream.

1 **B. “Bleed rate”** means the rate in standard cubic feet per hour at which gas is continuously vented
2 from a pneumatic controller.

3 **C. “Calendar year”** means a year beginning January 1 and ending December 31.

4 **D. “Centrifugal compressor”** means a machine used for raising the pressure of natural gas by
5 drawing in low-pressure natural gas and discharging significantly higher-pressure natural gas by means of a
6 mechanical rotating vane or impeller. A screw, sliding vane, and liquid ring compressor is not a centrifugal
7 compressor.

8 **E. “Closed vent system”** means a system that is designed, operated, and maintained to route the
9 VOC emissions from a source or process to a process stream or control device with no loss of VOC emissions to the
10 atmosphere during operation.

11 **F. “Commencement of operation”** means for an oil and natural gas well site, the date any
12 permanent production equipment is in use and product is consistently flowing to a sales line, gathering line or
13 storage vessel from the first producing well at the stationary source, but no later than the end of well completion
14 operation.

15 **G. “Component”** means a pump seal, flange, pressure relief device (including thief hatch or other
16 opening on a storage vessel), connector or valve that contains or contacts a process stream with hydrocarbons,
17 except for components where process streams consist solely of glycol, amine, produced water, or methanol.

18 **H. “Connector”** means flanged, screwed, or other joined fittings used to connect pipeline segments,
19 tubing, pipe components (such as elbows, reducers, “T’s” or valves) to each other; or a pipeline to a piece of
20 equipment; or an instrument to a pipe, tube, or piece of equipment. A common connector is a flange. Joined fittings
21 welded completely around the circumference of the interface are not considered connectors for the purpose of this
22 Part.

23 **I. “Construction”** means fabrication, erection, or installation of a stationary source, including but
24 not limited to temporary installations and portable stationary sources, but does not include relocations or like-kind
25 replacements of existing equipment.

26
27 **20.2.50.7(I). Definition of “Construction”**

28 The GCA supports the proposed definition of “construction” in 20.2.50.7(I). The relocation of an
29 existing compressor engine, where the engine is not otherwise rebuilt or reconstructed, should not
30 be considered “construction” of that engine, and should not provide a basis for converting the engine
31 from an existing engine into a new engine that is subject to the proposed rule’s more-stringent
32 emissions standards for new engines. GCA Exhibit 12 (Dutton Direct) at 13; GCA Exhibit 9
33 (Sheldon Direct) at 19.

34
35 **J. “Control device”** means air pollution control equipment or emission reduction technologies that
36 thermally combust, chemically convert, or otherwise destroy or recover air contaminants. Examples of control
37 devices may include but are not limited to open flares, enclosed combustion devices (ECDs), thermal oxidizers
38 (TOs), vapor recovery units (VRUs), fuel cells, condensers, catalytic converters (oxidative, selective, and non-
39 selective), or other emission reduction equipment. A control device may also include any other air pollution control
40 equipment or emission reduction technologies approved by the department to comply with emission standards in this
41 Part. A VRU or other equipment used primarily as process equipment is not considered a control device.

42 **K. “Department”** means the New Mexico environment department.

43 **L. “Design value”** means the 3-year average of the annual fourth-highest daily maximum 8-hour
44 average ozone concentration.

45 **M. “Downtime”** means the period of time when equipment is not in operation.

46 **N. “Enclosed combustion device”** means a combustion device where waste gas is combusted in an
47 enclosed chamber solely for the purpose of destruction. This may include, but is not limited to, an enclosed flare or
48 combustor.

49 **O. “Existing”** means constructed or reconstructed before the effective date of this Part.

50 **P. “Gathering and boosting station”** means a facility, including all equipment and compressors,
51 located downstream of a well site that collects or moves natural gas prior to the inlet of a natural gas processing
52 plant; or prior to a natural gas transmission pipeline or transmission compressor station if no gas processing is
53 performed; or collects, moves, or stabilizes crude oil or condensate prior to an oil transmission pipeline or other
54 form of transportation. Gathering and boosting stations may include equipment for liquids separation, natural gas
55 dehydration, and tanks for the storage of water and hydrocarbon liquids.

56 **Q. “Glycol dehydrator”** means a device in which a liquid glycol absorbent, including ethylene

glycol, diethylene glycol, or triethylene glycol, directly contacts a natural gas stream and absorbs water.

R. “High-bleed pneumatic controller” means a continuous bleed pneumatic controller that is designed to have a continuous bleed rate that emits in excess of 6 standard cubic feet per hour (scfh) of natural gas to the atmosphere.

S. “Hydrocarbon liquid” means any naturally occurring, unrefined petroleum liquid and can include oil, condensate, and intermediate hydrocarbons. Hydrocarbon liquid does not include produced water.

T. “Inactive well site” means a well site where the well is not being used for beneficial purposes, such as production or monitoring, and is not being drilled, completed, repaired or worked over.

U. “Injection well site” means a well site where the well is used for the injection of air, gas, water or other fluids into an underground stratum.

V. “Intermittent pneumatic controller” means a pneumatic controller that is not designed to have a continuous bleed rate but is designed to only release natural gas above de minimis amounts to the atmosphere as part of the actuation cycle.

W. “Liquid unloading” means the removal of accumulated liquid from the wellbore that reduces or stops natural gas production.

X. “Liquid transfer” means the unloading of a hydrocarbon liquid from a storage vessel to a tanker truck or tanker rail car for transport.

Y. “Local distribution company custody transfer station” means a metering station where the local distribution (LDC) company receives a natural gas supply from an upstream supplier, which may be an interstate transmission pipeline or a local natural gas producer, for delivery to customers through the LDC's intrastate transmission or distribution lines.

Z. “Low-bleed pneumatic controller” means a continuous bleed pneumatic controller that is designed to have a continuous bleed rate that emits less than or equal to 6 scfh of natural gas to the atmosphere.

AA. “Natural gas-fired heater” means an enclosed device using a controlled flame and with a primary purpose to transfer heat directly to a process material or to a heat transfer material for use in a process.

BB. “Natural gas processing plant” means the processing equipment engaged in the extraction of natural gas liquid from natural gas or fractionation of mixed natural gas liquid to a natural gas product, or both. A Joule-Thompson valve, a dew point depression valve, or an isolated or standalone Joule-Thompson skid is not a natural gas processing plant.

CC. “New” means constructed or reconstructed on or after the effective date of this Part.

DD. “Non-emitting controller” means a device that monitors a process parameter such as liquid level, pressure, or temperature and sends a signal to a control valve in order to control the process parameter and does not emit natural gas to the atmosphere. Examples of non-emitting controllers include but are not limited to instrument air or inert gas pneumatic controllers, electric controllers, mechanical controllers and Routed Pneumatic Controllers.

EE. “Occupied area” means the following:

(1) a building or structure used as a place of residence by a person, family, or families, and includes manufactured, mobile, and modular homes, except to the extent that such manufactured, mobile, or modular home is intended for temporary occupancy or for business purposes;

(2) indoor or outdoor spaces associated with a school that students use commonly as part of their curriculum or extracurricular activities;

(3) five-thousand (5,000) or more square feet of building floor area in commercial facilities that are operating and normally occupied during working hours; and

(4) an outdoor venue or recreation area, such as a playground, permanent sports field, amphitheater, or similar place of outdoor public assembly.

FF. “Operator” means the person or persons responsible for the overall operation of a stationary source.

GG. “Optical gas imaging (OGI)” means an imaging technology that utilizes a high-sensitivity infrared camera designed for and capable of detecting hydrocarbons.

HH. “Owner” means the person or persons who own a stationary source or part of a stationary source.

II. “Permanent pit or pond” means a pit or pond used for collection, retention, or storage of produced water or brine and is installed for longer than one year.

JJ. “Pneumatic controller” means a device that monitors a process parameter such as liquid level, pressure, or temperature and uses pressurized gas (which may be released to the atmosphere during normal operation) and sends a signal to a control valve in order to control the process parameter. Controllers that do not utilize pressurized gas are not pneumatic controllers.

1 **KK. “Pneumatic diaphragm pump”** means a positive displacement pump powered by pressurized gas
2 that uses the reciprocating action of flexible diaphragms in conjunction with check valves to pump a fluid. A pump
3 in which a fluid is displaced by a piston driven by a diaphragm is not considered a diaphragm pump. A lean glycol
4 circulation pump that relies on energy exchange with the rich glycol from the contactor is not considered a
5 diaphragm pump.

6 **LL. “Potential to emit (PTE)”** means the maximum capacity of a stationary source to emit any air
7 pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a
8 source to emit an air pollutant, including air pollution control equipment and restrictions on the hours of operation or
9 on the type or amount of material combusted, stored or processed, shall be treated as part of its design if the
10 limitation is federally enforceable. The PTE for nitrogen dioxide shall be based on total oxides of nitrogen.

11 **MM. “Produced water”** means a liquid that is an incidental byproduct from well completion and the
12 production of oil and gas.

13 **NN. “Produced water management unit”** means a recycling facility or a permanent pit or pond that
14 is a natural topographical depression, man-made excavation, or diked area formed primarily of earthen materials
15 (although it may be lined with man-made materials), which is designed to accumulate produced water and has a
16 design storage capacity equal to or greater than 50,000 barrels.

17 **OO. “Qualified Professional Engineer”** means an individual who is licensed by a state as a
18 professional engineer to practice one or more disciplines of engineering and who is qualified by education, technical
19 knowledge, and experience to make the specific technical certifications required under this Part.

20 **PP. “Reciprocating compressor”** means a piece of equipment that increases the pressure of process
21 gas by positive displacement, employing linear movement of a piston rod.

22 **QQ. “Reconstruction”** means a modification that results in the replacement of the components or
23 addition of integrally related equipment to an existing source, to such an extent that the fixed capital cost of the new
24 components or equipment exceeds fifty percent of the fixed capital cost that would be required to construct a
25 comparable entirely new facility.

26 **RR. “Recycling facility”** means a stationary or portable facility used exclusively for the treatment, re-
27 use, or recycling of produced water and does not include oilfield equipment such as separators, heater treaters, and
28 scrubbers in which produced water may be used.

29 **SS. “Responsible official”** means one of the following:

30 (1) for a corporation: president, secretary, treasurer, or vice-president of the corporation in
31 charge of a principal business function, or any other person who performs similar policy or decision-making
32 functions for the corporation, or a duly authorized representative.

33 (2) for a partnership or sole proprietorship: a general partner or the proprietor, respectively.

34 **TT. “Routed pneumatic controller”** means a pneumatic controller of any type that releases natural
35 gas to a process, sales line, or to a combustion device instead of directly to the atmosphere.

36 **UU. “Small business facility”** means, for the purposes of this Part, a source that is independently
37 owned or operated by a company that is not a subsidiary or a division of another business, that employs no more
38 than 10 employees at any time during the calendar year, and that has a gross annual revenue of less than \$250,000.
39 Employees include part-time, temporary, or limited service workers.

40 **VV. “Stabilized”** means, when used to refer to stored condensate, that the condensate has reached
41 substantial equilibrium with the atmosphere and that any emissions that occur are those commonly referred to within
42 the industry as “working and breathing losses.”

43 **WW. “Standalone tank battery”** means a tank battery that is not designated as associated with a well
44 site, gathering and boosting station, natural gas processing plant, or transmission compressor station.

45 **XX. “Startup”** means the setting into operation of air pollution control equipment or process
46 equipment.

47 **YY. “Stationary Source” or “source”** means any building, structure, equipment, facility, installation
48 (including temporary installations), operation, process, or portable stationary source that emits or may emit any air
49 contaminant. Portable stationary source means a source that can be relocated to another operating site with limited
50 dismantling and reassembly.

51 **ZZ. “Storage vessel”** means a single tank or other vessel that is designed to contain an accumulation
52 of hydrocarbon liquid or produced water and is constructed primarily of non-earthen material including wood,
53 concrete, steel, fiberglass, or plastic, which provide structural support. A well completion vessel that receives
54 recovered liquid from a well after commencement of operation for a period that exceeds 60 days is considered a
55 storage vessel. A storage vessel does not include a vessel that is skid-mounted or permanently attached to a mobile
56 source and located at the site for less than 180 consecutive days, such as a truck or railcar; a process vessel such as a

surge control vessel, bottom receiver, or knockout vessel; a pressure vessel designed to operate in excess of 204.9 kilopascals (29.72 psi) without emissions to the atmosphere; or a floating roof tank complying with 40 CFR Part 60, Subpart Kb.

AAA. “Tank battery” means a storage vessel or group of storage vessels that receive or store crude oil, condensate, or produced water from a well or wells for storage. The owner or operator shall designate whether a tank battery is a standalone tank battery or is associated with a well site, gathering and boosting station, natural gas processing plant, or transmission compressor station. The owner or operator shall maintain records of this designation and make them available to the department upon request. A tank battery associated with a well site, gathering or boosting station, natural gas processing plant, or transmission compressor station is subject to the requirements in this Part for those facilities, as applicable. Tank battery does not include storage vessels at saltwater disposal facilities or produced water management units.

BBB. “Temporarily abandoned well site” means an inactive well site where the well’s completion interval has been isolated. The completion interval is the reservoir interval that is open to the borehole and is isolated when tubing and artificial equipment has been removed and a bottom plug has been set.

CCC. “Transmission compressor station” means a facility, including all equipment and compressors, that moves pipeline quality natural gas at increased pressure from a well site or natural gas processing plant through a transmission pipeline for ultimate delivery to the local distribution company custody transfer station, underground storage, or to other industrial end users. Transmission compressor stations may include equipment for liquids separation, natural gas dehydration, and tanks for the storage of water and hydrocarbon liquids.

DDD. “Vessel measurement system” means equipment and methods used to determine the quantity of the liquids inside a vessel (including a flowback vessel) without requiring direct access through the vessel thief hatch or other opening.

EEE. “Well workover” means the repair or stimulation of an existing production well for the purpose of restoring, prolonging, or enhancing the production of hydrocarbons.

FFF. “Well site” means the equipment under the operator’s control directly associated with one or more oil wells or natural gas wells upstream of the natural gas processing plant or gathering and boosting station, if any. A well site may include equipment used for extraction, collection, routing, storage, separation, treating, dehydration, artificial lift, combustion, compression, pumping, metering, monitoring, and product piping. A well site does not include an injection well site.

[20.2.50.7 NMAC - N, XX/XX/2021]

20.2.50.8 SEVERABILITY: If any provision of this Part, or the application of this provision to any person or circumstance is held invalid, the remainder of this Part, or the application of this provision to any person or circumstance other than those as to which it is held invalid, shall not be affected thereby.

[20.2.50.8 NMAC - N, XX/XX/2021]

20.2.50.9 CONSTRUCTION: This Part shall be liberally construed to carry out its purpose.

[20.2.50.9 NMAC - N, XX/XX/2021]

20.2.50.10 SAVINGS CLAUSE: Repeal or supersession of prior versions of this Part shall not affect administrative or judicial action initiated under those prior versions.

[20.2.50.10 NMAC - N, XX/XX/2021]

20.2.50.11 COMPLIANCE WITH OTHER REGULATIONS: Compliance with this Part does not relieve a person from the responsibility to comply with other applicable federal, state, or local laws, rules or regulations, including more stringent controls.

[20.2.50.11 NMAC - N, XX/XX/2021]

20.2.50.12 DOCUMENTS: Documents incorporated and cited in this Part may be viewed at the New Mexico environment department, air quality bureau.

[20.2.50.12 NMAC - N, XX/XX/2021]

[The Air Quality Bureau is located at 525 Camino de los Marquez, Suite 1, Santa Fe, New Mexico 87505.]

20.2.23.13-20.2.23.110 [RESERVED]

20.2.50.111 APPLICABILITY:

1 **A.** This Part applies to certain crude oil and natural gas production and processing equipment
2 associated with operations that extract, collect, separate, dehydrate, store, process, transport, transmit, or handle
3 hydrocarbon liquids or produced water in the areas specified in 20.2.50.2 NMAC and are located at well sites, tank
4 batteries, gathering and boosting stations, natural gas processing plants, and transmission compressor stations, up to
5 the point of the local distribution company custody transfer station.

6 **B.** In determining if any source is subject to this Part, including a small business facility as defined in
7 this Part, the owner or operator shall calculate the Potential to Emit (PTE) of such source and shall have the PTE
8 calculation certified by a qualified professional engineer or an inhouse engineer with expertise in the operation of oil
9 and gas equipment, vapor control systems, and pressurized liquid samples. The emission standards and requirements
10 of this Part may not be considered in the PTE calculation required in this Section or in determining if any source is
11 subject to this Part. The calculation shall be kept on file for a minimum of five years and shall be provided to the
12 department upon request. This certified calculation shall be completed before startup for new sources, and within
13 two years of the effective date of this Part for existing sources.

14 **C.** An owner or operator of a small business facility as defined in this Part shall comply with the
15 requirements of this Part as specified in 20.2.50.125 NMAC.

16 **D.** Oil transmission pipelines, oil refineries, natural gas transmission pipelines (except transmission
17 compressor stations), and saltwater disposal facilities are not subject to this Part.
18 [20.2.50.111 NMAC - N, XX/XX/2021]
19

20 **20.2.50.112 GENERAL PROVISIONS:**

21 **A. General requirements:**

22 **(1)** Sources subject to emissions standards and requirements under this Part shall be operated
23 and maintained consistent with manufacturer specifications, or good engineering and maintenance practices. When
24 used in this Part, the term manufacturer specifications means either the original equipment manufacturer (or
25 successor) emissions-related design specifications, maintenance practices and schedules, or an alternative set of
26 specifications, maintenance practices and schedules sufficient to operate and maintain such sources in good working
27 order, which have been approved by qualified maintenance personnel based on engineering principles and field
28 experience. The owner or operator shall keep manufacturer specifications on file when available, as well as any
29 alternative specifications that are being followed, and make them available upon request by the department. The
30 terms of 20.2.50.112.A(1) apply any time reference to manufacturer specifications occurs in this Part.

31 **(2)** Sources, including associated air pollution control equipment and monitoring equipment,
32 subject to emission standards or requirements under this Part shall at all times, including periods of startup,
33 shutdown, and malfunction, be operated and maintained in a manner consistent with safety and good air pollution
34 control practices for minimizing emissions of VOC and NO_x. During a period of startup, shutdown, or malfunction,
35 this general duty to minimize emissions requires that the owner or operator reduce emissions from the affected
36 source to the greatest extent consistent with safety and good air pollution control practices. The general duty to
37 minimize emissions does not require the owner or operator to make any further efforts to reduce emissions beyond
38 levels required by the applicable standard under this Part. The terms of 20.2.50.112.A(2) apply any time reference to
39 minimizing emissions occurs in this Part.

40 **(3)** Within two years of the effective date of this Part, owners and operators of a source
41 requiring equipment monitoring, testing, or inspection shall develop and implement a data system(s) capable of
42 storing information for each source in a manner consistent with this section. The owner or operator shall maintain
43 information regarding each source requiring equipment monitoring, testing, or inspection in a data system(s),
44 including the following information in addition to the required information specified in an applicable section of this
45 Part:

- 46 **(a)** unique identification number;
- 47 **(b)** location (latitude and longitude) of the source;
- 48 **(c)** type of source (e.g., tank, VRU, dehydrator, pneumatic controller, etc.);
- 49 **(d)** for each source, the controlled VOC (and NO_x, if applicable) emissions in
50 lbs./hr. and tpy;
- 51 **(e)** make, model, and serial number; and
- 52 **(f)** a link to the manufacturer maintenance schedule or repair recommendations, or
53 company-specific operational and maintenance practices.
54
55
56

20.2.50.112(A)(3). Equipment Monitoring Tags

The GCA supports the NMED's removal of the Equipment Monitoring Tag (EMT) requirements from the proposed data system requirements in 20.2.50.112(A)(3). The tagging requirement included in the July 2021 draft of the proposed rule would be unnecessarily complex and burdensome, and the compliance demonstration, recordkeeping, database, and database reporting requirements in 20.2.50 will provide ample compliance demonstration information to the Department without the additional cost and burdens associated with the EMT requirement. GCA Exhibit 15 (Copeland Direct) at 8-22.

(4) The data system(s) shall be maintained by the owner or operator of the facility.

(5) The owner or operator shall manage the source's record of data in the data system(s). The owner or operator shall generate a Compliance Database Report (CDR) from the information in the data system. The CDR is an electronic report maintained by the owner or operator and that can be submitted to the department upon request.

(6) The CDR is a report distinct from the owner or operator's data system(s). The department does not require access to the owner or operator's data system(s), only the CDR.

(7) The owner or operator's authorized representative must be able to access and input data in the data system(s) record for that source. That access is not required to be at any time from any location.

(8) The owner or operator shall contemporaneously track each monitoring event, and shall comply with the following:

(a) data gathered during each monitoring or testing event shall be uploaded into the data system as soon as practicable, but no later than three business days of each compliance event, and when the final reports are received;

(b) certain sections of this Part require a date and time stamp, including a GPS display of the location, for certain monitoring events. No later than one year from the effective date of this Part, the department shall finalize a list of approved technologies to comply with date and time stamp requirements, and shall post the approved list on its website. Owners and operators shall comply with this requirement using an approved technology no later than two years from the effective date of this Part. Prior to such time, owners and operators may comply with this requirement by making a written or electronic record of the date and time of any affected monitoring event; and

(c) data required by this Part shall be maintained in the data system(s) for at least five years.

(9) The department for good cause may request that an owner or operator retain a third party at their own expense to verify any data or information collected, reported, or recorded pursuant to this Part, and make recommendations to correct or improve the collection of data or information. Such requests may be made no more than once per year. The owner or operator shall submit a report of the verification and any recommendations made by the third party to the department by a date specified and implement the recommendations in the manner approved by the department. The owner or operator may request a hearing on whether good cause was demonstrated or whether the recommendations approved by the department must be implemented.

(10) Where Part 50 refers to applicable federal standards or requirements, the references are to the applicable federal standards or requirements that were in effect at the time of the effective date of this Part, unless the applicable federal standards or requirements have been superseded by more stringent federal standards or requirements.

(11) Prior to modifying an existing source, including but not limited to increasing a source's throughput or emissions, the owner or operator shall determine the applicability of this Part in accordance with 20.2.50.111.B NMAC.

B. Monitoring requirements: In addition to any monitoring requirements specified in the applicable sections of this Part, owners and operators shall comply with the following:

(1) Unless otherwise specified, the term monitoring as used in this Part includes, but is not limited to, monitoring, testing, or inspection requirements.

(2) If equipment is shut down at the time of periodic testing, monitoring, or inspection required under this Part, the owner or operator shall not be required to restart the unit for the sole purpose of performing the testing, monitoring, or inspection, but shall note the shut down in the records kept for that equipment for that monitoring event.

C. Recordkeeping requirements: In addition to any recordkeeping requirements specified in the applicable sections of this Part, owners and operators shall comply with the following:

(1) Within three business days of a monitoring event and when final reports are received, an electronic record shall be made of the monitoring event and shall include the information required by the applicable sections of this Part.

(2) The owner or operator shall keep an electronic record required by this Part for five years.

(3) By July 1 of each calendar year starting in 2024, the owner or operator shall generate a Compliance Database Report (CDR) on all assets under its control that are subject to the CDR requirements of this Part at the time the CDR is prepared and keep this report on file for five years.

D. Reporting requirements: In addition to any reporting requirements specified in the applicable sections in this Part, the owner or operator shall respond within three business days to a request for information by the department under this Part. The response shall provide the requested information for each source subject to the request by electronically submitting a CDR to the department's Secure Extranet Portal (SEP), or by other means and formats specified by the department in its request. If the department requests a CDR from multiple facilities, additional time will be given as appropriate.

20.2.50.112(D). Deadline for CDR Submittal

The GCA supports the NMED's proposed requirement in 20.2.50.112(D) that an owner or operator respond within three business days to a request for information under 20.2.50. This deadline will ensure that the CDR is promptly generated and submitted to the Department while largely alleviating the potential compliance challenges associated with a 24-hour reporting deadline. GCA Exhibit 15 (Copeland Direct) at 21.

20.2.50.112. No Semi-Annual Deviation Reporting

The GCA supports the NMED's decision not to add WildEarth Guardians' requested semi-annual deviation reporting requirement to the proposed rule. The proposed rule includes significant monitoring, testing, recordkeeping, and reporting requirements that are sufficient for demonstrating compliance with 20.2.50. The compliance self-reporting sought by WildEarth Guardians has only been imposed on "major sources" of air pollutants and not in a state rule that is generally applicable to minor sources. WildEarth Guardians' proposal would impose significant additional burdens on the regulated community by requiring the self-reporting of information already available to the Department. GCA Exhibit 30 (Copeland Rebuttal) at 2-7.

[20.2.50.112 NMAC - N, XX/XX/2021]

20.2.50.113 ENGINES AND TURBINES:

A. Applicability: Portable and stationary natural gas-fired spark ignition engines, compression ignition engines, and natural gas-fired combustion turbines located at well sites, tank batteries, gathering and boosting stations, natural gas processing plants, and transmission compressor stations, with a rated horsepower greater than the horsepower ratings of table 1, 2, and 3 of 20.2.50.113 NMAC are subject to the requirements of 20.2.50.113 NMAC. Non-road engines as defined in 40 C.F.R. §§ 1068.30 are not subject to 20.2.50.113 NMAC.

B. Emission standards:

(1) The owner or operator of a portable or stationary natural gas-fired spark ignition engine, compression ignition engine, or natural gas-fired combustion turbine shall ensure compliance with the emission standards by the dates specified in Subsection B of 20.2.50.113 NMAC, except as otherwise specified under an Alternative Compliance Plan approved pursuant to Paragraph (10) of Subsection B of 20.2.50.113 NMAC or alternative emissions standards approved pursuant to Paragraph (11) of Subsection B of 20.2.50.113 NMAC.

(2) The owner or operator of an existing natural gas-fired spark ignition engine shall complete an inventory of all existing engines subject to this Part by January 1, 2023, and shall prepare a schedule to ensure that each existing engine does not exceed the emission standards in table 1 of Paragraph (2) of Subsection B of 20.2.50.113 NMAC as follows, except as otherwise specified under an Alternative Compliance Plan (ACP) approved pursuant to Paragraph (10) of Subsection B of 20.2.50.113 NMAC or alternative emissions standards approved pursuant to Paragraph (11) of Subsection B of 20.2.50.113 NMAC:

(a) by January 1, 2025, the owner or operator shall ensure at least thirty percent of the company's existing engines meet the emission standards.

(b) by January 1, 2027, the owner or operator shall ensure at least an additional thirty-five percent of the company's existing engines meet the emission standards.

(c) by January 1, 2029, the owner or operator shall ensure that the remaining thirty-

five percent of the company's existing engines meet the emission standards.

(d) in lieu of meeting the emission standards for an existing natural gas-fired spark ignition engine, an owner or operator may reduce the annual hours of operation of an engine such that the annual PTE of NO_x and VOC emissions are reduced to achieve an equivalent allowable ton per year emission reduction as set forth in table 1 of Paragraph (2) of Subsection B of 20.2.50.113 NMAC, or by at least ninety-five percent per year.

Table 1 - EMISSION STANDARDS FOR EXISTING NATURAL GAS-FIRED SPARK IGNITION ENGINES

Engine Type	Rated bhp	NO _x	CO	NMNEHC (as propane)
2 Stroke Lean Burn	>1,000	3.0 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr
4-Stroke Lean Burn	>1,000 bhp and <1,775 bhp	2.0 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr
4-Stroke Lean Burn	≥1,775 bhp	0.5 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr
Rich Burn	>1,000 bhp	0.5 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr

20.2.50.113(B)(2), Table 1. NO_x Emission Standards for Existing Engines

The GCA supports the NMED's proposed NO_x emission standards for existing engines in 20.2.50.113(B)(2), Table 1. Owners and operators will face significant challenges to meet the proposed emission standards, particularly for some existing engines, but the proposed NO_x emission standards for existing engines are largely technically feasible and economically reasonable for the majority of engines operated by GCA member companies. Tr. Vol. 6, 1756: 9-19 (Dutton). The Department appropriately changed the NO_x emission standards for existing engines that were included in the July 2021 draft of the proposed rule. The NO_x standards for existing engines that were included in the July 2021 draft of the proposed rule were based on faulty assumptions, and would not have been achievable for many existing engines. GCA Exhibit 12 (Dutton Direct) at 7; Tr. Vol. 6, 1755: 18-22 (Dutton). Selective catalytic reduction ("SCR") is not an economically reasonable control option for most existing engines. Low emissions combustion ("LEC") technology cannot be broadly retrofit to existing engines, and many existing engines already employ the available LEC technology and yet are not able to achieve the NO_x emission standards included in the July 2021 draft of the proposed rule. GCA Exhibit 12 (Dutton Direct) at 7-10; GCA Exhibit 28 (Dutton Rebuttal) at 3-10. The proposed NO_x emission standards are also consistent with the NO_x emissions standards in Pennsylvania general permit GP-5 limit for engines installed between 1997 and 2013. GCA Exhibit 28 (Dutton Rebuttal) at 4; NMED Exhibit 37 (Pennsylvania Permit GP-5) at 12.

(3) The owner or operator of a new natural gas-fired spark ignition engine shall ensure the engine does not exceed the emission standards in table 2 of Paragraph (3) of Subsection B of 20.2.50.113 NMAC upon startup.

Table 2 - EMISSION STANDARDS FOR NEW NATURAL GAS-FIRED SPARK IGNITION ENGINES

Engine Type	Rated bhp	NO _x	CO	NMNEHC (as propane)
Lean-burn	> 500 and < 1875	0.50 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr
Lean-burn	≥ 1875	0.30 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr
Rich-burn	>500	0.50 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr

20.2.50.113(B)(3), Table 2. NO_x Emission Standards for New Engines

The GCA supports the NMED's proposed NO_x emission standards for new engines in 20.2.50.113(B)(3), Table 2. The proposed NO_x emissions standards and size categories for lean-burn engines are feasible and consistent with what is available on the market for companies seeking to purchase new engines. Tr. Vol. 6, 1749: 3-10 and 1749:20 to 1750:3 (Sheldon). The Department appropriately changed the NO_x emission standards for new engines that were included in the July 2021 draft of the proposed rule. The NO_x standards for new engines that were included in the July

2021 draft of the proposed rule would not be achievable for some families of new engines, despite the application of best available technology for reducing NO_x emissions. Tr. Vol. 6, 1748: 7-17 (Sheldon). Selective catalytic reduction (“SCR”) is not an economically reasonable control option for most new engines, and is only economically viable for the largest engines that have specific site advantages, such as on-site electrical power and personnel. Tr. Vol. 6, 1753:15 to 1754:21 (Dutton). For those reasons, the Department appropriately raised the size threshold for the application of the most-stringent NO_x emission standard from 1,000 horsepower to 1,875 horsepower in the proposed rule. Tr. Vol. 6, 1749:11-14 (Sheldon); Tr. Vol. 6, 1753:15 to 1754:6 (Dutton).

(4) The owner or operator of a natural gas-fired spark ignition engine with NO_x emission control technology that uses ammonia or urea as a reagent shall ensure that the exhaust ammonia slip is limited to 10 ppmvd or less, corrected to fifteen percent oxygen.

(5) The owner or operator of a compression ignition engine shall ensure compliance with the following emission standards:

(a) a new portable or stationary compression ignition engine with a maximum design power output equal to or greater than 500 horsepower that is not subject to the emission standards under Subparagraph (b) of Paragraph (5) of Subsection B of 20.2.50.113 NMAC shall limit NO_x emissions to not more than nine g/bhp-hr upon startup.

(b) a stationary compression ignition engine that is subject to and complying with Subpart III of 40 CFR Part 60, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, is not subject to the requirements of Subparagraph (a) of Paragraph (5) of Subsection B of 20.2.50.113 NMAC.

(6) The owner or operator of a portable or stationary compression ignition engine with NO_x emission control technology that uses ammonia or urea as a reagent shall ensure that the exhaust ammonia slip is limited to 10 ppmvd or less, corrected to fifteen percent oxygen.

(7) The owner or operator of a stationary natural gas-fired combustion turbine with a maximum design rating equal to or greater than 1,000 bhp shall comply with the applicable emission standards for an existing, new, or reconstructed turbine listed in table 3 of Paragraph (7) of Subsection B of 20.2.50.113 NMAC.

(a) The owner or operator of an existing stationary natural gas-fired combustion turbine shall complete an inventory of all existing turbines subject to Part 50 by July 1, 2023, and shall prepare a schedule to ensure that each subject existing turbine does not exceed the emission standards in table 3 of Paragraph (7) of Subsection B of 20.2.50.113 NMAC as follows, except as otherwise specified under an Alternative Compliance Plan approved pursuant to Paragraph (10) of Subsection B of 20.2.50.113 NMAC or alternative emissions standards approved pursuant to Paragraph (11) of Subsection B of 20.2.50.113 NMAC:

(i) by January 1, 2024, the owner or operator shall ensure at least thirty percent of the company’s existing turbines meet the emission standards.

(ii) by January 1, 2026, the owner or operator shall ensure at least an additional thirty-five percent of the company’s existing turbines meet the emission standards.

(iii) by January 1, 2028, the owner or operator shall ensure that the remaining thirty-five percent of the company’s existing turbines meet the emission standards.

(iv) in lieu of meeting the emission standards for an existing stationary natural gas-fired combustion turbine, an owner or operator may reduce the annual hours of operation of a turbine such that the annual PTE of NO_x and VOC emissions are reduced to achieve an equivalent allowable ton per year emission reduction as set forth in table 3 of Paragraph (7) of Subsection B of 20.2.50.113 NMAC, or by at least ninety-five percent per year.

Table 3 - EMISSION STANDARDS FOR STATIONARY COMBUSTION TURBINES

For each applicable existing natural gas-fired combustion turbine, the owner or operator shall ensure the turbine does not exceed the following emission standards no later than the schedule set forth in Paragraph (7)(a) of Subsection B of 20.2.50.113 NMAC:			
Turbine Rating (bhp)	NO _x (ppmvd @ 15% O ₂)	CO (ppmvd @ 15% O ₂)	NMNEHC (as propane, ppmvd @ 15% O ₂)
≥1,000 and <4,100	150	50	9

≥4,100 and <15,000	50	50	9
≥15,000	50	50 or 93% reduction	5 or 50% reduction
For each applicable new natural gas-fired combustion turbine, the owner or operator shall ensure the turbine does not exceed the following emission standards upon startup:			
Turbine Rating (bhp)	NO _x (ppmvd @ 15% O ₂)	CO (ppmvd @ 15% O ₂)	NMNEHC (as propane, ppmvd @ 15% O ₂)
≥1,000 and <4,000	100	25	9
≥4,000 and <15,900	15	10	9
≥15,900	9.0 Uncontrolled or 2.0 with Control	10 Uncontrolled or 1.8 with Control	5

(8) The owner or operator of a stationary natural gas-fired combustion turbine with NO_x emission control technology that uses ammonia or urea as a reagent shall ensure that the exhaust ammonia slip is limited to 10 ppmvd or less, corrected to fifteen percent oxygen.

(9) The owner or operator of an emergency use engine as defined by 40 C.F.R. §§ 60.4211, 60.4243, or 63.6675 is not subject to the emissions standards in this Part but shall be equipped with a non-resettable hour meter to monitor and record any hours of operation.

(10) In lieu of complying with the emission standards for individual engines and turbines established in Subsection B of 20.2.50.113 NMAC, an owner or operator may elect to comply with the emission standards through an Alternative Compliance Plan (ACP) approved by the department. An ACP must include the list of engines or turbines subject to the ACP, and a demonstration that the total allowable emissions for the engines or turbines subject to the ACP will not exceed the total allowable emissions under the emission standards of this Part. Prior to submitting a proposed ACP to the Department, the owner or operator shall comply with the following requirements in the order listed:

(a) The owner or operator shall contract with an independent third-party engineering or consulting firm to conduct a technical and regulatory review of the ACP proposal. The selected firm shall review the proposal to determine if it meets the requirements of this Part, and shall prepare and certify an evaluation of the proposed ACP indicating whether the ACP proposal adheres to the requirements of this Part.

(b) Following the independent third-party review, the owner or operator shall provide the ACP, along with the third-party evaluation and findings, to the department for posting on the department's website. The department shall post the ACP and the third-party review within 15 days of receipt.

(c) Following posting by the department, the owner or operator shall publish a notice in a newspaper of general circulation announcing the ACP proposal, the dates it will be available for review and comment by the public, and information on how and where to submit comments. The dates specified in the public notice must provide for a thirty-day comment period.

(d) Following the close of the thirty-day notice and comment period, the department shall send the comments submitted on the ACP proposal and findings to the owner or operator. The owner or operator shall provide written responses to all comments to the department.

(e) Following receipt of the owner or operator's responses to comments received during the thirty-day comment period, the department shall make a determination whether to approve or deny the ACP proposal within 90 days. The department shall approve an ACP that meets the requirements of this Part, unless the department determines that the total allowable emissions under the ACP exceed the total allowable emissions under the emission standards of 20.2.50.113 NMAC. If approved by the department, the emission reductions and associated emission limits for the affected engines or turbines shall become enforceable terms under this Part.

(11) The owner or operator may submit a request for alternative emission standards for a specific engine or turbine based on technical impracticability or economic infeasibility. The owner or operator is not required to submit an ACP proposal under Paragraph (10) of Subsection B of 20.2.50.113 NMAC prior to submission of a request for alternative emissions standards under this Paragraph (11), provided that the owner or operator satisfies Subparagraph (b) of Paragraph (11) of Subsection B of 20.2.50.113 NMAC, below. To qualify for an alternative emission standard, an owner or operator must comply with the following requirements:

(a) prepare a reasonable demonstration detailing why it is not technically practicable or economically feasible for the individual engine or turbine to achieve the emissions standards in table 1

of Paragraph (2) of Subsection B of 20.2.50.113 NMAC or table 3 of Paragraph (7) of Subsection B of 20.2.50.113 NMAC, as applicable;

(b) prepare a demonstration detailing why emissions from the individual engine or turbine cannot be addressed through an ACP in a technically practicable or economically feasible manner;

(c) prepare a technical analysis for the affected engine or turbine specifying the emission reductions that can be achieved through other means, such as combustion modifications or capacity limitations. The technical analysis shall include an analysis of any previous modifications of the source and a determination whether such modifications meet the definition of a reconstructed source, such that the source should be considered a new source under federal regulations. The analysis shall include a certification that the modifications to the source are not in violation of any state or federal air quality regulation; and

(d) fulfill the requirements of Subparagraphs (a) through (c) of Paragraph (10) of Subsection B of 20.2.50.113 NMAC.

(e) Following the close of the thirty-day notice and comment period, the department shall send the comments submitted on the alternative emission standards and findings to the owner or operator. The owner or operator shall provide written responses to all comments to the department.

(f) Following receipt of the owner or operator's responses to comments received during the thirty-day comment period, the department shall make a determination whether to approve or deny the alternative emission standards within 90 days. If approved by the department, the emission reductions and alternative emission standards for the affected engine or turbine shall become enforceable terms under this Part.

(g) If approved by the department, the emissions reductions and alternative standards for the affected engine or turbine shall become enforceable terms under this Part.

(12) A short-term replacement engine may be substituted for any engine subject to Section 20.2.50.113 NMAC consistent with any applicable air quality permit containing allowances for short term replacement engines, including but not limited to New Source Review and General Construction Permits issued under 20.2.72 NMAC. A short-term replacement engine is not considered a "new" engine for purposes of this Part unless the engine it replaces is a "new" engine within the meaning of this Part. The reinstallation of the existing engine following removal of the short-term replacement engine is not considered a "new" engine under this Part unless the engine was "new" prior to the temporary replacement.

C. Monitoring requirements:

(1) Maintenance and repair for a spark ignition engine, compression ignition engine, and stationary combustion turbine shall meet the manufacturer recommended maintenance schedule as defined in 20.2.50.112 NMAC.

(2) Maintenance conducted consistent with an applicable NSPS or NESHAP requirement shall be deemed to be in compliance with 20.2.50.113.C(1) NMAC.

20.2.50.113(C)(1). Engine Maintenance and Repair Schedule

The GCA supports the NMED's proposed engine maintenance schedule requirement in 20.2.50.113(C)(1). The NMED's cross-reference to "manufacturer recommended maintenance schedule" as defined in 20.2.50.112 allows for the use of a maintenance schedule that is sufficient to operate and maintain engines in good working order and that has been approved by qualified maintenance personnel based on engineering principles and field expertise. The proposed rule recognizes that an engine manufacturer's minimum recommended maintenance schedule is a one-size-fits-all recommendation that does not account for the actual service and operating conditions of a particular engine, and that engine operators are the true experts in developing and implementing an appropriate maintenance schedule. GCA Exhibit 15 (Copeland Direct) at 3-6. In addition, the cross-reference (along with 20.2.50.113(C)(2)) make the proposed rule consistent with the applicable federal air rules that govern engines, which allow for maintenance and inspection schedules that have been tailored to a particular engine's service and operation, consistent with good air pollution control practice for minimizing emissions. GCA Exhibit 15 (Copeland Direct) at 6-7.

(3) Catalytic converters (oxidative, selective, and non-selective) and AFR controllers shall be inspected and maintained according to manufacturer specifications as defined in 20.2.50.112 NMAC, and shall include replacement of oxygen sensors as necessary for oxygen-based controllers. During periods of catalytic converter or AFR controller maintenance, the owner or operator shall shut down the engine or turbine until the catalytic converter or AFR controller can be replaced with a functionally equivalent spare to allow the engine or turbine to return to operation.

20.2.50.113(C)(3). Catalytic Converter Inspection and Maintenance Schedule

The GCA supports the NMED's proposed catalytic converter inspection and maintenance schedule requirement in 20.2.50.113(C)(3). Catalytic converters used to control engine emissions should not be subject to a monthly inspection requirement, because monthly physical inspections of catalytic converters are unnecessary to ensure continued performance of the catalytic converters and potentially have long-term negative impacts on the catalyst that is used to control emissions. GCA Exhibit 23 (Filby Direct) at 5. The NMED's clarification that the requirement for monthly inspections of all control devices required by 20.2.50.115(B)(3) in the proposed rule's general control device provisions is a visual inspection to identify leaks and releases addressed the GCA's concerns regarding the rule's inspection requirements for catalytic converters. Tr. Vol. 6, 1900:13-1901:12 (Filby).

(4) For equipment operated for 500 hours per year or more, compliance with the emission standards in Subsection B of 20.2.50.113 NMAC shall be demonstrated within 180 days of the effective date applicable to the source as defined by Subsection B(2) and (7) or, if installed more than 180 days after the effective date, within 60 days after achieving the maximum production rate at which the source will be operated, but not later than 180 days after initial startup of such source. Compliance with the applicable emission standards shall be demonstrated by performing an initial emission test for NO_x and VOC, as defined in 40 CFR 51.100(s) using U.S. EPA reference methods or ASTM D6348. Periodic monitoring shall be conducted annually to demonstrate compliance with the allowable emission standards and may be demonstrated utilizing a portable analyzer or EPA reference methods. For units with g/hp-hr emission standards, the engine load shall be calculated using the following equations:

$$\text{Load (Hp)} = \frac{\text{Fuel consumption (scf/hr)} \times \text{Measured fuel heating value (LHV btu/scf)}}{\text{Manufacturer's rated BSFC (btu/bhp-hr) at 100\% load or best efficiency}}$$

$$\text{Load (Hp)} = \frac{\text{Fuel consumption (gal/hr)} \times \text{Measured fuel heating value (LHV btu/gal)}}{\text{Manufacturer's rated BSFC (btu/bhp-hr) at 100\% load or best efficiency}}$$

Where: LVH = lower heating value, btu/scf, or btu/gal, as appropriate; and
BSFC = brake specific fuel consumption

If the manufacturer's rated BSFC is not available, an operator may use an alternative load calculation methodology based on available data.

(a) emissions testing shall be conducted within 10 percent of 100 percent peak (or the highest achievable) load. The load and the parameters used to calculate it shall be recorded to document operating conditions at the time of testing and shall be included with the test report.

(b) emissions testing utilizing a portable analyzer shall be conducted in accordance with the requirements of the current version of ASTM D6522. If a portable analyzer has met a previously approved department criterion, the analyzer may be operated in accordance with that criterion until it is replaced.

(c) the default time period for a test run shall be at least 20 minutes.

(d) an emissions test shall consist of three separate runs, with the arithmetic mean of the results from the three runs used to determine compliance with the applicable emission standard.

(e) during emissions tests, pollutant and diluent concentration shall be monitored and recorded. Fuel flow rate shall be monitored and recorded if stack gas flow rate is determined utilizing U.S. EPA reference method 19. This information shall be included with the periodic test report.

(f) stack gas flow rate shall be calculated in accordance with U.S. EPA reference method 19 utilizing fuel flow rate (scf) determined by a dedicated fuel flow meter and fuel heating value (Btu/scf). The owner or operator shall provide a contemporaneous fuel gas analysis (preferably on the day of the test, but no earlier than three months before the test date) and a recent fuel flow meter calibration certificate (within the most recent quarter) with the final test report. Alternatively, stack gas flow rate may be determined by using U.S. EPA reference methods 1 through 4 or through the use of manufacturer provided fuel consumption rates.

(g) upon request by the department, an owner or operator shall submit a notification

and protocol for an initial or annual emissions test.

(h) emissions testing shall be conducted at least once per calendar year. Emission testing required by Subparts GG, IIII, JJJJ, or KKKK of 40 CFR 60, or Subpart ZZZZ of 40 CFR 63, may be used to satisfy the emissions testing requirements if it meets the requirements of 20.2.50.113 NMAC and is completed at least once per calendar year.

(i) The results of emissions testing demonstrating compliance with the emission standard for CO may be used as a surrogate to demonstrate compliance with the emission standard for NMNEHC.

20.2.50.113(C)(4)(i). Carbon Monoxide as a Surrogate Pollutant in Engine Emissions Tests

The GCA supports the NMED's proposal in 20.2.50.113(C)(4)(i) to allow the results of emissions testing demonstrating compliance with the emission standard for CO to be a surrogate to demonstrate compliance with the emission standard for NMNEHC. For purpose of engine emissions testing, CO serves as a reliable surrogate for NMNEHC, and the New Mexico Air Quality Bureau's permit template language allows permit holders to use engine emissions test results for CO to demonstrate compliance with permit emissions standards for NMNEHC. GCA Exhibit 25 (Bartley Direct) at 3-6; Tr. Vol. 6, 1797:12-1798:16 (Bartley).

(5) The owner or operator of equipment operated less than 500 hours per year shall monitor the hours of operation using a non-resettable hour meter and shall test the unit at least once per 8760 hours of operation in accordance with the emissions testing requirements in Paragraph (4) of Subsection C of 20.2.50.113 NMAC.

(6) An owner or operator of an emergency use engine as defined by 40 C.F.R. §§ 60.4211, 60.4243, or 63.6675 shall monitor the hours of operation by a non-resettable hour meter.

(7) An owner or operator limiting the annual operating hours of an engine or turbine to meet the requirements of Paragraph (2) or (7) of Subsection B of 20.2.50.113 NMAC shall monitor the hours of operation by a non-resettable hour meter.

(8) Prior to any monitoring, testing, inspection, or maintenance of an engine or turbine, the owner or operator shall date and time stamp the event, and the monitoring data entry shall be made in accordance with the requirements of 20.2.50.112 and 113 NMAC.

D. Recordkeeping requirements:

(1) The owner or operator of a spark ignition engine, compression ignition engine, or stationary combustion turbine shall maintain a record in accordance with 20.2.50.112 NMAC for the engine or turbine. The record shall include:

(a) the make, model, serial number, and unique identification number for the engine or turbine;

(b) location of the source (latitude and longitude);

(c) a copy of the engine, turbine, or control device manufacturer recommended maintenance and repair schedule as defined in 20.2.50.112 NMAC; and

(d) all inspection, maintenance, or repair activity on the engine, turbine, and control device, including:

(i) the date and time stamp(s), including GPS of the location, of an inspection, maintenance, or repair;

(ii) the date a subsequent analysis was performed (if applicable);

(iii) the name of the person(s) conducting the inspection, maintenance or repair;

(iv) a description of the physical condition of the equipment as found during the inspection;

(v) a description of maintenance or repair conducted; and

(vi) the results of the inspection and any required corrective actions.

(2) The owner or operator of a spark ignition engine, compression ignition engine, or stationary combustion turbine shall maintain records of initial and annual emissions testing for the engine or turbine for a period of five years. The records shall include:

(a) make, model, and serial number for the tested engine or turbine;

(b) the date and time stamp(s), including GPS of the location, of any monitoring event, including sampling or measurements;

(c) date analyses were performed;

- (d) name of the person(s) and the qualified entity that performed the analyses;
- (e) analytical or test methods used;
- (f) results of analyses or tests;
- (g) calculated emissions of NO_x and VOC in lb/hr and tpy; and
- (h) operating conditions at the time of sampling or measurement.

(3) The owner or operator of an emergency use engine as defined by 40 C.F.R. §§ 60.4211, 60.4243, or 63.6675 shall record the total annual hours of operation as recorded by the non-resettable hour meter.

(4) The owner or operator limiting the annual operating hours of an engine or turbine to meet the requirements of Paragraph (2) or (7) of Subsection B of 20.2.50.113 NMAC shall record the hours of operation by a non-resettable hour meter. The owner or operator shall calculate and record the annual NO_x and VOC emission calculation, based on the engine or turbine's actual hours of operation, to demonstrate that an equivalent allowable ton per year emission reduction as set forth in table 1 or table 3 of Paragraph (2) or (7) of Subsection B of 20.2.50.113 NMAC, or the ninety-five percent emission reduction requirement is met.

E. Reporting requirements: The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.
[20.2.50.113 NM-C - N, XX/XX/2021]

20.2.50.114 COMPRESSOR SEALS:

A. Applicability:

(1) Centrifugal compressors using wet seals and located at tank batteries, gathering and boosting stations, and natural gas processing plants are subject to the requirements of 20.2.50.114 NMAC. Centrifugal compressors located at well sites and transmission compressor stations are not subject to the requirements of 20.2.50.114 NMAC.

(2) Reciprocating compressors located at tank batteries, gathering and boosting stations, and natural gas processing plants are subject to the requirements of 20.2.50.114 NMAC. Reciprocating compressors located at well sites and transmission compressor stations are not subject to the requirements of 20.2.50.114 NMAC.

B. Emission standards:

(1) The owner or operator of an existing centrifugal compressor with wet seals shall control VOC emissions from a centrifugal compressor wet seal fluid degassing system by at least ninety-five percent within two years of the effective date of this Part. Emissions shall be captured and routed via a closed vent system to a control device, recovery system, fuel cell, or a process stream.

(2) The owner or operator of an existing reciprocating compressor shall, either:

(a) replace the reciprocating compressor rod packing after every 26,000 hours of compressor operation or every 36 months, whichever is reached later. The owner or operator shall begin counting the hours of compressor operation toward the first replacement of the rod packing upon the effective date of this Part; or

(b) beginning no later than two years from the effective date of this Part, collect emissions from the rod packing, and route them via a closed vent system to a control device, recovery system, fuel cell, or a process stream.

(3) The owner or operator of a new centrifugal compressor with wet seals shall control VOC emissions from the centrifugal compressor wet seal fluid degassing system by at least ninety-five percent upon startup. Emissions shall be captured and routed via a closed vent system to a control device, recovery system, fuel cell, or process stream.

(4) The owner or operator of a new reciprocating compressor shall, upon startup, either:

(a) replace the reciprocating compressor rod packing after every 26,000 hours of compressor operation, or every 36 months, whichever is reached later; or

(b) collect emissions from the rod packing and route them via a closed vent system to a control device, a recovery system, fuel cell, or a process stream.

(5) The owner or operator complying with the emission standards in Subsection B of 20.2.50.114 NMAC through use of a control device shall comply with the control device requirements in 20.2.50.115 NMAC.

C. Monitoring requirements:

(1) The owner or operator of a reciprocating compressor complying with Subparagraph (a) of Paragraph (2) or Subparagraph (a) of Paragraph (4) of Subsection B of 20.2.50.114 NMAC shall continuously monitor the hours of operation with a non-resettable hour meter and track the number of hours since initial startup or since the previous reciprocating compressor rod packing replacement.

(2) The owner or operator of a reciprocating compressor complying with Subparagraph (b) of Paragraph (2) or Subparagraph (b) of Paragraph (4) of Subsection B of 20.2.50.114 NMAC shall monitor the rod packing emissions collection system semiannually to ensure that it operates as designed and routes emissions through a closed vent system to a control device, recovery system, fuel cell, or process stream.

(3) The owner or operator of a centrifugal or reciprocating compressor complying with the requirements in Subsection B of 20.2.50.114 NMAC through use of a closed vent system or control device shall comply with the monitoring requirements in 20.2.50.115 NMAC.

(4) The owner or operator of a centrifugal or reciprocating compressor shall comply with the monitoring requirements in 20.2.50.112 NMAC.

D. Recordkeeping requirements:

(1) The owner or operator of a centrifugal compressor using a wet seal fluid degassing system shall maintain a record of the following:

- (a) the location (latitude and longitude) of the centrifugal compressor;
- (b) the date of construction or reconstruction of the centrifugal compressor;
- (c) the monitoring required in Subsection C of 20.2.50.114 NMAC, including the time and date of the monitoring, the person(s) conducting the monitoring, a description of any problem observed during the monitoring, and a description of any corrective action taken; and
- (d) the type, make, model, and unique identification number or equivalent identifier of a control device used to comply with the control requirements in Subsection B of 20.2.50.114 NMAC.

(2) The owner or operator of a reciprocating compressor shall maintain a record of the following:

- (a) the location (latitude and longitude) of the reciprocating compressor;
- (b) the date of construction or reconstruction of the reciprocating compressor; and
- (c) the monitoring required in Subsection C of 20.2.50.114 NMAC, including:
 - (i) the number of hours of operation since the effective date, initial startup after the effective date, or the last rod packing replacement, as applicable;
 - (ii) data showing the effectiveness of the rod packing emissions collection system, as applicable; and
 - (iii) the time and date of the inspection, the person(s) conducting the inspection, a description of any problems observed during the inspection, and a description of corrective actions taken.

(3) The owner or operator of a centrifugal or reciprocating compressor complying with the requirements in Subsection B of 20.2.50.114 NMAC through use of a control device or closed vent system shall comply with the recordkeeping requirements in 20.2.50.115 NMAC.

(4) The owner or operator of a centrifugal or reciprocating compressor shall comply with the recordkeeping requirements in 20.2.50.112 NMAC.

E. Reporting requirements: The owner or operator of a centrifugal or reciprocating compressor shall comply with the reporting requirements in 20.2.50.112 NMAC.
[20.2.50.114 NM-C - N, XX/XX/2021]

20.2.50.115 CONTROL DEVICES AND CLOSED VENT SYSTEMS:

A. Applicability: These requirements apply to control devices and closed vent systems as defined in 20.2.50.7 NMAC and used to comply with the emission standards and emission reduction requirements in this Part.

B. General requirements:

(1) Control devices used to demonstrate compliance with this Part shall be installed, operated, and maintained consistent with manufacturer specifications, and good engineering and maintenance practices.

(2) Control devices shall be adequately designed and sized to achieve the control efficiency rates required by this Part and to handle the reasonably expected range of inlet VOC or NOx concentrations or volumes.

(3) The owner or operator shall inspect control devices visually or consistent with applicable federally approved inspection methods at least monthly to identify defects, leaks, and releases, and to ensure proper operation. Prior to an inspection or monitoring event, the owner or operator shall date and time stamp the event, and the required monitoring data entry shall be made in accordance with this Part.

(4) The owner or operator shall ensure that a control device used to comply with emission standards in this Part operates as a closed vent system that captures and routes VOC emissions to the control device,

1 in order to minimize venting of unburnt gas to the atmosphere.

2 (5) The owner or operator of a permanent closed vent system for a centrifugal compressor
3 wet seal fluid degassing system, reciprocating compressor, natural gas driven pneumatic pump, or storage vessel
4 using a control device or routing emissions to a process shall:

5 (a) ensure the control device or process is of sufficient design and capacity to
6 accommodate the expected range of emissions from the affected sources;

7 (b) conduct an assessment to confirm that the closed vent system is of sufficient
8 design and capacity to ensure that emissions from the affected equipment are routed to the control device or process;
9 and

10 (c) have the assessment certified by a qualified professional engineer or an in-house
11 engineer with expertise regarding the design and operation of closed vent system(s) in accordance with Paragraphs
12 (c)(i) and (ii) of this Section.

13 (i) The assessment of the closed vent system shall be prepared under the
14 direction or supervision of a qualified professional engineer or an in-house engineer who signs the certification in
15 Paragraph (c)(ii) of this Section.

16 (ii) the owner or operator shall provide the following certification, signed
17 and dated by a qualified professional engineer or an in-house engineer: "I certify that the closed vent system
18 assessment was prepared under my direction or supervision. I further certify that the closed vent system assessment
19 was conducted, and this report was prepared, pursuant to the requirements of this Part. Based on my professional
20 knowledge and experience, and inquiry of personnel involved in the assessment, the certification submitted herein is
21 true, accurate, and complete."

22 (d) an owner or operator of an existing closed vent system shall comply with the
23 requirements of Paragraph (5) of Subsection B of 20.2.50.115 NMAC within three years of the effective date of this
24 Part and within 90 days of startup for a new closed vent system.

25 (6) The owner or operator shall keep manufacturer specifications for all control devices on
26 file. The information shall include the unique identification number, type of unit, manufacturer name, make, model,
27 capacity, and destruction or reduction efficiency data.

28 **C. Requirements for open flares:**

29 (1) Emission standards:

30 (a) the flare shall be properly sized and designed to ensure proper combustion
31 efficiency to combust the gas sent to the flare, and combustion shall be maintained for the duration of time that gas
32 is sent to the flare. The owner or operator shall not send gas to the flare in excess of the manufacturer maximum
33 rated capacity.

34 (b) the owner or operator shall equip each new and existing flare (except those
35 flares required to meet the requirements of Paragraph (c) of this Subsection) with a continuous pilot flame, an
36 operational auto-igniter, or require manual ignition, and shall comply with the following no later than one year after
37 the effective date of this part, unless otherwise specified:

38 (i) a flare with a continuous pilot flame or an auto-igniter shall be
39 equipped with a system to ensure the flare is operated with a flame present at all times when gas is being sent to the
40 flare.

41 (ii) the owner or operator of a flare with manual ignition shall inspect and
42 ensure a flame is present upon initiating a flaring event.

43 (iii) a new flare controlling a continuous gas stream shall be equipped with
44 a continuous pilot flame upon startup.

45 (iv) an existing flare controlling a continuous gas stream shall be equipped
46 with a continuous pilot.

47 (c) an existing flare located at a site with an annual average daily production of
48 equal to or less than 10 barrels of oil per day or an average daily production of 60,000 standard cubic feet of natural
49 gas shall be equipped with an auto-ignitor, continuous pilot, or technology (e.g. alarm) that alerts the owner or
50 operator of a flare malfunction, if replaced or reconstructed after the effective date of this Part.

51 (d) the owner or operator shall operate a flare with no visible emissions, except for
52 periods not to exceed a total of 30 seconds during any 15 consecutive minutes. The flare shall be designed so that an
53 observer can, by means of visual observation from the outside of the flare or by other means such as a continuous
54 monitoring device, determine whether it is operating properly. The observation may be terminated if visible
55 emissions are observed and recorded and action is taken to address the visible emissions.

56 (e) the owner or operator shall repair the flare within three business days of any

thermocouple or other flame detection device alarm activation.

(2) Monitoring requirements:

(a) the owner or operator of a flare with a continuous pilot or auto-igniter shall continuously monitor the presence of a pilot flame, or presence of flame during flaring if using an auto-igniter, using a thermocouple equipped with a continuous recorder and alarm to detect the presence of a flame. An alternative equivalent technology alerting the owner or operator of failure of ignition of the gas stream may be used in lieu of a continuous recorder and alarm, if approved by the department;

(b) the owner or operator of a manually ignited flare shall monitor the presence of a flame using continuous visual observation during a flaring event;

(c) the owner or operator shall, at least quarterly, and upon observing visible emissions, perform a U.S. EPA method 22 observation while the flare pilot or auto-igniter flame is present to certify compliance with visible emission requirements. The observation period shall be a minimum of 15 consecutive minutes. The observation may be terminated if visible emissions are observed and recorded and action is taken to address the visible emissions;

(d) prior to an inspection or monitoring event, the owner or operator shall date and time stamp the event, and the required monitoring data entry shall be made in accordance with this Part; and

(e) the owner or operator shall monitor the technology that alerts the owner or operator of a flare malfunction and any instances of technology or alarm activation.

(3) Recordkeeping requirements: The owner or operator of an open flare shall keep a record of the following:

(a) any instance of thermocouple or other approved technology or flame detection device alarm activation, including the date and cause of alarm activation, action taken to bring the flare into a normal operating condition, the name of the person(s) conducting the inspection, and any maintenance activity performed;

(b) the results of the U.S. EPA method 22 observations;

(c) the monitoring of the presence of a flame on a manual flare during a flaring event as required under Subparagraph (b) of Paragraph (2) of Subsection C of 20.2.50.115 NMAC;

(d) the results of the most recent gas analysis for the gas being flared, including VOC content and heating value; and

(e) the data and time stamp(s), including GPS of the location, of any monitoring event.

(4) Reporting requirements: The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.

D. Requirements for enclosed combustion devices (ECD) and thermal oxidizers (TO):

(1) Emission standards:

(a) the ECD/TO shall be properly sized and designed to ensure proper combustion efficiency to combust the gas sent to the ECD/TO. The owner or operator shall not send gas to the ECD/TO in excess of the manufacturer maximum rated capacity.

(b) the owner or operator shall equip each new ECD/TO with a continuous pilot flame or an auto-igniter upon startup. Existing ECD/TO shall be equipped with a continuous pilot flame or an auto-igniter no later than two years after the effective date of this Part.

(c) ECD/TO with a continuous pilot flame or an auto-igniter shall be equipped with a system to ensure that the ECD/TO is operated with a flame present at all times when gas is sent to the ECD/TO. Combustion shall be maintained for the duration of time that gas is sent to the ECD/TO. New ECD/TOs shall comply with this requirement upon startup, and existing ECD/TOs shall comply with this requirement within 2 years of the effective date of this Part.

(d) the owner or operator shall operate an ECD/TO with no visible emissions, except for periods not to exceed a total of 30 seconds during any 15 consecutive minutes. The ECD/TO shall be designed so that an observer can, by means of visual observation from the outside of the ECD/TO or by other means such as a continuous monitoring device, determine whether it is operating properly. The observation may be terminated if visible emissions are observed and recorded and action is taken to address the visible emissions.

(2) Monitoring requirements:

(a) the owner or operator of an ECD/TO with a continuous pilot or an auto-igniter shall continuously monitor the presence of a pilot flame, or of a flame during combustion if using an auto-igniter, using a thermocouple equipped with a continuous recorder and alarm to detect the presence of a flame. An alternative equivalent technology alerting the owner or operator of failure of ignition of the gas stream may be used

in lieu of a continuous recorder and alarm, if approved by the department.

(b) the owner or operator shall, at least quarterly, and upon observing visible emissions, perform a U.S. EPA method 22 observation while the ECD/TO pilot flame or auto-igniter flame is present to certify compliance with the visible emission requirements. The period of observation shall be a minimum of 15 consecutive minutes. The observation may be terminated if visible emissions are observed and recorded and action is taken to address the visible emissions.

(c) prior to an inspection or monitoring event, the owner or operator shall date and time stamp the event, and the required monitoring data entry shall be made in accordance with the monitoring requirements of this Part.

(3) Recordkeeping requirements: The owner or operator of an ECD/TO shall keep records of the following:

(a) any instance of a thermocouple or other approved technology or flame detection device alarm activation, including the date and cause of the activation, any action taken to bring the ECD/TO into normal operating condition, the name of the person(s) conducting the inspection, and any maintenance activities performed;

(b) the results of the U.S. EPA method 22 observations;

(c) the data and time stamp(s), including GPS of the location, of any monitoring event; and

(d) the results of the most recent gas analysis for the gas being combusted, including VOC content and heating value.

(4) Reporting requirements: The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.

E. Requirements for vapor recover units (VRU):

(1) Emission standards:

(a) the owner or operator shall operate the VRU as a closed vent system that captures and routes all VOC emissions directly back to the process or to a sales pipeline and does not vent to the atmosphere.

(b) the owner or operator shall control VOC emissions during startup, shutdown, maintenance, or other VRU downtime with a backup control device (e.g. flare, ECD, TO) or redundant VRU during the period of VRU downtime, unless otherwise approved in an air permit issued prior to the effective date of this Part. Alternatively, the owner or operator may shut down and isolate the source being controlled by the VRU. For sites that already have a VRU installed as of the effective date of this Part, the owner or operator shall install backup control devices or redundant VRUs within three years of the effective date of this Part.

(2) Monitoring Requirements:

(a) the owner or operator shall comply with the standards for equipment leaks in 20.2.50.116 NMAC, or alternatively, shall implement a program that meets the requirements of Subpart OOOOa of 40 CFR 60.

(b) prior to a VRU inspection or monitoring event, the owner or operator shall date and time stamp the event, and the required monitoring data entry shall be made in accordance with the requirements of this Part.

(3) Recordkeeping requirements: For a VRU inspection or monitoring event, the owner or operator shall record the result of the event, including the name of the person(s) conducting the inspection, any maintenance or repair activities required, and the date and time stamp(s), including GPS of the location, of any monitoring event. The owner or operator shall record the type of redundant control device used during VRU downtime, or keep records of the source shut down and isolated and the time period during which it was shut down, or records of compliance with an air permit issued prior to the effective date of this Part.

(4) Reporting requirements: The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.

F. Recordkeeping requirements: The owner or operator of a control device or closed vent system shall maintain a record of the following:

(1) the certification of the closed vent system assessment, where applicable, and as required by this Part; and

(2) the information required in Paragraph (6) of Subsection B of 20.2.50.115 NMAC.

G. Reporting requirements: The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.

[20.2.50.115 NM-C - N, XX/XX/2021]

20.2.50.116 EQUIPMENT LEAKS AND FUGITIVE EMISSIONS:

A. Applicability: Well sites, tank batteries, gathering and boosting stations, natural gas processing plants, transmission compressor stations, and associated piping and components are subject to the requirements of 20.2.50.116 NMAC. Components in water or air service are not subject to the requirements of 20.2.50.116 NMAC. The requirements of this Part may be considered in the facility-wide PTE and in determining the monitoring frequency requirements of this Section.

B. Emission standards: The owner or operator of oil and gas production and processing equipment located at well sites, tank batteries, gathering and boosting stations, natural gas processing plants, or transmission compressor stations shall demonstrate compliance with this Part by performing the monitoring, recordkeeping, and reporting requirements specified in 20.2.50.116 NMAC. Tank batteries supporting multiple facilities are subject to the requirements for the most stringently regulated facility of which they are a part.

C. Default Monitoring requirements: Owners and operators shall comply with the following monitoring requirements:

(1) The owner or operator of a facility with an annual average daily production or average daily throughput of greater than 10 barrels of oil per day or an average daily production of greater than 60,000 standard cubic feet per day of natural gas shall, at least weekly, conduct an external audio, visual, and olfactory (AVO) inspections of thief hatches, closed vent systems, pumps, compressors, pressure relief devices, open-ended valves or lines, valves, flanges, connectors, piping, and associated equipment to identify defects and leaking components as follows:

(a) conduct an external visual inspection for defects, which may include cracks, holes, or gaps in piping or covers; loose connections; liquid leaks; broken or missing caps; broken, cracked or otherwise damaged seals or gaskets; broken or missing hatches; or broken or open access covers or other closure or bypass devices;

(b) conduct an audio inspection for pressure leaks and liquid leaks;

(c) conduct an olfactory inspection for unusual or strong odors; and

(d) any positive detection during the AVO inspection shall be repaired in accordance with Subsection E if not repaired at the time of discovery.

20.2.50.116(C)(1)(d). Leaks Detected During AVO Inspection

The GCA supports the NMED's proposed requirements relating to the tagging and repair of leaks detected during an AVO inspection in 20.2.50.116(C)(1)(d) and 20.2.50.116(E). The requirement included in the July 2021 draft of the proposed rule that a leaking component discovered through an AVO inspection be tagged within three calendar days presented significant challenges for GCA companies that are responsible for providing gas compression services; the sites are often quite remote and are manned most frequently by the customers' personnel. GCA Exhibit 15 (Copeland Direct) at 22-23. The proposed rule retains the obligation to tag and repair leaking components found through AVO inspection, but eliminates the three calendar-day deadline for affixing a visible tag to the leaking component.

(2) The owner or operator of a facility with an annual average daily production or average daily throughput of equal to or less than 10 barrels of oil per day or an average daily production of equal to or less than 60,000 standard cubic feet per day of natural gas shall, at least monthly, conduct an external audio, visual, and olfactory (AVO) inspection of thief hatches, closed vent systems, pumps, compressors, pressure relief devices, open-ended valves or lines, valves, flanges, connectors, piping, and associated equipment to identify defects and leaking components as specified in Subparagraphs (a) through (d) of Paragraph (1) of Subsection (C) of 20.2.50.116 NMAC.

(3) The owner or operator of the following facilities shall conduct an inspection using U.S. EPA method 21 or optical gas imaging (OGI) of thief hatches, closed vent systems, pumps, compressors, pressure relief devices, open-ended valves or lines, valves, flanges, connectors, piping, and associated equipment to identify leaking components at a frequency determined according to the following schedules, and upon request by the department for good cause shown:

(a) for existing well sites and standalone tank batteries, the owner or operator shall comply with these requirements no later than two years from the effective date of this Part.

(b) for well sites and standalone tank batteries:

(i) annually at facilities with a PTE less than two tpy VOC;

1 (ii) semi-annually at facilities with a PTE equal to or greater than two tpy
 2 and less than five tpy VOC; and
 3 (iii) quarterly at facilities with a PTE equal to or greater than five tpy VOC.
 4 (c) for gathering and boosting stations and natural gas processing plants:
 5 (i) quarterly at facilities with a PTE less than 25 tpy VOC; and
 6 (ii) monthly at facilities with a PTE equal to or greater than 25 tpy VOC.
 7 (d) for transmission compressor stations, quarterly or in compliance with the federal
 8 equipment leak and fugitive emissions monitoring requirements of New Source Performance Standards, 40 C.F.R.
 9 Part 60, as may be revised, so long as the federal equipment leak and fugitive emissions monitoring requirements are
 10 at least as stringent as the New Source Performance Standards OOOOa, 40 CFR Part 60, in existence as of the
 11 effective date of this Part.
 12 (e) for well sites within 1,000 feet of an occupied area:
 13 (i) quarterly at facilities with a PTE less than 5 tpy VOC; and
 14 (ii) monthly at facilities with a PTE equal to or greater than 5 tpy VOC.
 15 (f) for existing wellhead only facilities, annual inspections shall be completed on
 16 the following schedule: 30% by January 1, 2024; 65% by January 1, 2025; and 100% by January 1, 2026.
 17 (g) for inactive well sites:
 18 (i) for well sites that are inactive on or before the effective date of this
 19 Part, annually beginning within 6 months of the effective date of this Part;
 20 (ii) for well sites that become inactive after the effective date of this Part,
 21 annually beginning 30 days after the site becomes an inactive well site.
 22 (4) Inspections using U.S. EPA method 21 shall meet the following requirements:
 23 (a) the instrument shall be calibrated before each day of use by the procedures
 24 specified in U.S. EPA method 21 and the instrument manufacturer; and
 25 (b) a leak is detected if the instrument records a measurement of 500 ppm or greater
 26 of hydrocarbons, and the measurement is not associated with normal equipment operation, such as pneumatic device
 27 actuation and crank case ventilation.
 28 (5) Inspections using OGI shall meet the following requirements:
 29 (a) the instrument shall comply with the specifications, daily instrument checks, and
 30 leak survey requirements set forth in Subparagraphs (1) through (3) of Paragraph (i) of 40 CFR 60.18; and
 31 (b) a leak is detected if the emission images recorded by the OGI instrument are not
 32 associated with normal equipment operation, such as pneumatic device actuation or crank case ventilation.
 33 (6) Components that are difficult, unsafe, or inaccessible to monitor, as determined by the
 34 following conditions, are not required to be inspected until it becomes feasible to do so:
 35 (a) difficult to monitor components are those that require elevating the monitoring
 36 personnel more than two meters above a supported surface;
 37 (b) unsafe to monitor components are those that cannot be monitored without
 38 exposing monitoring personnel to an immediate danger as a consequence of completing the monitoring; and
 39 (c) inaccessible to monitor components are those that are buried, insulated, or
 40 obstructed by equipment or piping that prevents access to the components by monitoring personnel.
 41 (7) Owners and operators of well sites subject to the requirements in Subparagraph (e) of
 42 Paragraph (3) of Subsection C of Section 20.2.50.116 NMAC must conduct an evaluation to determine applicability
 43 within 30 days of constructing a new well site, and within 90 days of the effective date of this Part for existing well
 44 sites.
 45 (8) An owner or operator conducting an evaluation pursuant to Paragraph (7) of Subsection
 46 C of Section 20.2.50.116 NMAC shall measure the distance from the latitude and longitude of each well at a well
 47 site to the following points for each type of occupied area:
 48 (a) the property line for indoor or outdoor spaces associated with a school that
 49 students use commonly as part of their curriculum or extracurricular activities and outdoor venues or recreation
 50 areas;
 51 (b) the property line for outdoor venues or recreation areas, such as a playground,
 52 permanent sports field, amphitheater, or other similar place of outdoor public assembly;
 53 (c) the location of a building or structure used as a place of residency by a person, a
 54 family, or families; and
 55 (d) the location of a commercial facility with five-thousand (5,000) or more spare
 56 feet of building floor area that is operating and normally occupied during working hours.

(9) Injection well sites and temporarily abandoned well sites are not subject to the leak survey requirements of Paragraphs (3) through (6) of Subsection C of 20.2.50.116 NMAC.

(10) Prior to any monitoring event, the owner or operator shall date and time stamp the monitoring event.

D. Alternative equipment leak monitoring plans: An owner or operator may comply with the equipment leak requirements of Subsection C of 20.2.50.116 NMAC through an equally effective and enforceable alternative monitoring plan as follows:

(1) An owner or operator may comply with an individual alternative monitoring plan, subject to the following requirements:

(a) the proposed alternative monitoring plan shall be submitted to and approved by the department prior to conducting monitoring under that plan.

(b) the department may terminate an approved alternative monitoring plan if the department finds that the owner or operator failed to comply with a provision of the plan and failed to correct and disclose the violation to the department within 15 calendar days of identifying the violation.

(c) upon department denial or termination of an approved alternative monitoring plan, the owner or operator shall comply with the default monitoring requirements of Subsection C of 20.2.50.116 NMAC within 15 days.

(2) An owner or operator may comply with a pre-approved monitoring plan maintained by the department, subject to the following requirements:

(a) the owner or operator shall notify the department of the intent to conduct monitoring under a pre-approved monitoring plan, and identify which pre-approved plan will be used, at least 15 days prior to conducting the first monitoring under that plan.

(b) the department may terminate the use of a pre-approved monitoring plan by the owner or operator if the department finds that the owner or operator failed to comply with a provision of the plan and failed to correct and disclose the violation to the department within 15 calendar days of identifying the violation.

(c) upon department denial or termination of an approved alternative monitoring plan, the owner or operator shall comply with the default monitoring requirements of Subsection C of 20.2.50.116 NMAC within 15 days.

E. Repair requirements: For a leak detected pursuant to monitoring conducted under 20.2.50.116 NMAC:

(1) the owner or operator shall place a visible tag on the leaking component not otherwise repaired at the time of discovery until the component has been repaired;

(2) leaks shall be repaired as soon as practicable but no later than 30 days from discovery;

(3) the equipment must be re-monitored no later than 15 days after the repair of the leak to demonstrate that it has been repaired; and

(4) if the leak cannot be repaired within 30 days of discovery without a process unit shutdown, the leak may be designated "Repair delayed," the date of the next scheduled unit shutdown must be identified, and the leak must be repaired before the end of the scheduled process unit shutdown or within 2 years, whichever is earlier.

(5) if the leak cannot be repaired within 30 days of discovery due to shortage of parts, the leak may be designated "Repair delayed," and must be repaired within 15 days of resolution of such shortage.

F. Recordkeeping requirements:

(1) The owner or operator shall keep a record of the following for all AVO, RM 21, OGI, or alternative equipment leak monitoring inspections conducted as required under 20.2.50.116 NMAC, and shall provide the record to the department upon request:

(a) facility location (latitude and longitude);

(b) time and date stamp, including GPS of the location, of any monitoring;

(c) monitoring method (e.g. AVO, RM 21, OGI, approved alternative method);

(d) name of the person(s) performing the inspection;

(e) a description of any leak requiring repair or a note that no leak was found; and

(f) whether a visible tag was placed on the leak or not;

(2) The owner or operator shall keep the following record for any leak that is detected:

(a) the date the leak is detected;

(b) the date of attempt to repair;

(c) for a leak with a designation of "repair delayed" the following shall be recorded:

(i) reason for delay if a leak is not repaired within the required number of

days after discovery. If a delay is due to a parts shortage, a record documenting the attempt to order the parts and the unavailability due to a shortage is required;

(ii) the date of next scheduled process unit shutdown by which the repair will be completed; and

(iii) name of the person(s) who determined that the repair could not be implemented without a process unit shutdown.

(d) date of successful leak repair;

(e) date the leak was monitored after repair and the results of the monitoring; and

(f) a description of the component that is designated as difficult, unsafe, or inaccessible to monitor, an explanation stating why the component was so designated, and the schedule for repairing and monitoring the component.

(3) For a leak detected using OGI, the owner or operator shall keep records of the specifications, the daily instrument check, and the leak survey requirements specified at 40 CFR 60.18(i)(1)-(3).

(4) The owner or operator shall comply with the recordkeeping requirements in 20.2.50.112 NMAC.

G. Reporting requirements:

(1) The owner or operator shall certify the use of an alternative equipment leak monitoring plan under Subsection D of 20.2.50.116 NMAC to the department annually, if used.

(2) The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.

[20.2.50.116 NMAC - N, XX/XX/2021]

20.2.50.117 NATURAL GAS WELL LIQUID UNLOADING:

A. Applicability: Liquid unloading operations resulting in the venting of natural gas at natural gas wells are subject to the requirements of 20.2.50.117 NMAC. Liquid unloading operations that do not result in the venting of any natural gas are not subject to this Part. Owners and operators of a natural gas well subject to this Part must comply with the standards set forth in Paragraph (1) of Subsection B of 20.2.50.117 NMAC within two years of the effective date of this Part.

B. Emission standards:

(1) The owner or operator of a natural gas well shall implement at least one of the following best management practices during the life of the well to avoid the need for venting of natural gas associated with liquid unloading:

(a) use of a plunger lift;

(b) use of artificial lift;

(c) use of a control device;

(d) use of an automated control system; or

(e) other control if approved by the department

(2) The owner or operator of a natural gas well shall implement the following best management practices during venting associated with liquid unloading to minimize emissions, consistent with well site conditions and good engineering practices:

(a) reduce wellhead pressure before blowdown or venting to atmosphere;

(b) monitor manual venting associated with liquid unloading in close proximity to the well or via remote telemetry; and

(c) close vents to the atmosphere and return the well to normal production operation as soon as practicable.

C. Monitoring requirements:

(1) The owner or operator shall monitor the following parameters during venting associated with liquid unloading:

(a) wellhead pressure;

(b) flow rate of the vented natural gas (to the extent feasible); and

(c) duration of venting to the storage vessel, tank battery, or atmosphere.

(2) The owner or operator shall calculate the volume and mass of VOC emitted during a venting event associated with a liquid unloading event.

(3) The owner or operator shall comply with the monitoring requirements of 20.2.50.112 NMAC.

D. Recordkeeping requirements:

(1) The owner or operator shall keep the following records for liquid unloading:

- (a) unique identification number and location (latitude and longitude) of the well;
- (b) date of the unloading event;
- (c) wellhead pressure;
- (d) flow rate of the vented natural gas (to the extent feasible. If not feasible, the owner or operator shall use the estimated flow rate in the emission calculation);
- (e) duration of venting to the storage vessel, tank battery, or atmosphere;
- (f) a description of the management practice used to minimize venting of VOC emissions before and during the liquid unloading;
- (g) the type of control device or control technique used to control VOC emissions during venting associated with the liquid unloading event; and
- (h) a calculation of the VOC emissions vented during a liquid unloading event based on the duration, calculated volume, and composition of the produced gas.

(2) The owner or operator shall comply with the recordkeeping requirements in 20.2.50.112 NMAC.

E. Reporting requirements: The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.
[20.2.50.117 NMAC - N, XX/XX/2021]

20.2.50.118 GLYCOL DEHYDRATORS:

A. Applicability: Glycol dehydrators with a PTE equal to or greater than two tpy of VOC and located at well sites, tank batteries, gathering and boosting stations, natural gas processing plants, and transmission compressor stations are subject to the requirements of 20.2.50.118 NMAC.

B. Emission standards:

(1) Existing glycol dehydrators with a PTE equal to or greater than two tpy of VOC shall achieve a minimum combined capture and control efficiency of ninety-five percent of VOC emissions from the still vent and flash tank (if present) no later than two years after the effective date of this Part. If a combustion control device is used, the combustion control device shall have a minimum design combustion efficiency of ninety-eight percent.

(2) New glycol dehydrators with a PTE equal to or greater than two tpy of VOC shall achieve a minimum combined capture and control efficiency of ninety-five percent of VOC emissions from the still vent and flash tank (if present) upon startup. If a combustion control device is used, the combustion control device shall have a minimum design combustion efficiency of ninety-eight percent.

(3) The owner or operator of a glycol dehydrator shall comply with the following requirements:

(a) still vent and flash tank emissions shall be routed at all times to the reboiler firebox, condenser, combustion control device, fuel cell, to a process point that either recycles or recompresses the emissions or uses the emissions as fuel, or to a VRU that reinjects the VOC emissions back into the process stream or natural gas pipeline;

(b) if a VRU is used, it shall consist of a closed loop system of seals, ducts, and a compressor that reinjects the vapor into the process or the natural gas pipeline. The VRU shall be operational at least ninety-five percent of the time the facility is in operation, resulting in a minimum combined capture and control efficiency of ninety-five percent. The VRU shall be installed, operated, and maintained according to the manufacturer's specifications; and

(c) still vent and flash tank emissions shall not be vented directly to the atmosphere during normal operation.

(4) an owner or operator complying with the requirements in Subsection B of 20.2.50.118 NMAC through use of a control device shall comply with the requirements in 20.2.50.115 NMAC.

(5) The requirements of Subsection B of 20.2.50.118 NMAC cease to apply when the actual annual VOC emissions from a new or existing glycol dehydrator are less than two tpy VOC.

C. Monitoring requirements:

(1) The owner or operator of a glycol dehydrator shall conduct an annual extended gas analysis on the dehydrator inlet gas and calculate the uncontrolled and controlled VOC emissions in tpy.

(2) The owner or operator of a glycol dehydrator shall inspect the glycol dehydrator, including the reboiler and regenerator, and the control device or process the emissions are being routed, semi-annually to ensure it is operating as initially designed and in accordance with the manufacturer recommended

operation and maintenance schedule.

(3) Prior to any monitoring event, the owner or operator shall date and time stamp the event, and the monitoring data entry shall be made in accordance with the requirements of this Part.

(4) An owner or operator complying with the requirements in Subsection B of 20.2.50.118 NMAC through the use of a control device shall comply with the monitoring requirements in 20.2.50.115 NMAC.

(5) Owners and operators shall comply with the monitoring requirements in 20.2.50.112 NMAC.

D. Recordkeeping requirements:

(1) The owner or operator of a glycol dehydrator shall maintain a record of the following:

(a) unique identification number and dehydrator location (latitude and longitude);

(b) glycol circulation rate, monthly natural gas throughput, and the date of the most recent throughput measurement;

(c) data and methodology used to estimate the PTE of VOC (must be a department approved calculation methodology);

(d) controlled and uncontrolled VOC emissions in tpy;

(e) type, make, model, and unique identification number of the control device or process the emissions are being routed;

(f) time and date stamp, including GPS of the location, of any monitoring;

(g) results of any equipment inspection, including maintenance or repair activities required to bring the glycol dehydrator into compliance; and

(h) a copy of the glycol dehydrator manufacturer specifications.

(2) An owner or operator complying with the requirements in Paragraph (1) or (2) of Subsection B of 20.2.50.118 NMAC through use of a control device as defined in this Part shall comply with the recordkeeping requirements in 20.2.50.115 NMAC.

(3) The owner or operator shall comply with the recordkeeping requirements in 20.2.50.112 NMAC.

E. Reporting requirements: The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.
[20.2.50.118 NMAC - N, XX/XX/2021]

20.2.50.119 HEATERS:

A. Applicability: Natural gas-fired heaters with a rated heat input equal to or greater than 20 MMBtu/hour including heater treaters, heated flash separators, evaporator units, fractionation column heaters, and glycol dehydrator reboilers in use at well sites, tank batteries, gathering and boosting stations, natural gas processing plants, and transmission compressor stations are subject to the requirements of 20.2.50.119 NMAC.

B. Emission standards:

(1) Natural gas-fired heaters shall comply with the emission limits in table 1 of 20.2.50.119 NMAC.

Table 1 - EMISSION STANDARDS FOR NO_x AND CO

Date of Construction:	NO _x (ppmvd @ 3% O ₂)	CO (ppmvd @ 3% O ₂)
Constructed or reconstructed before the effective date of 20.2.50 NMAC	30	400
Constructed or reconstructed on or after the effective date of 20.2.50 NMAC	30	400

(2) Existing natural gas-fired heaters shall comply with the requirements of 20.2.50.119 NMAC no later than three years after the effective date of this Part.

(3) New natural gas-fired heaters shall comply with the requirements of 20.2.50.119 NMAC upon startup.

C. Monitoring requirements:

(1) The owner or operator shall:

(a) conduct emission testing for NO_x and CO within 180 days of the compliance date specified in Paragraph (2) or (3) of Subsection B of 20.2.50.119 NMAC and at least every two years thereafter.

(b) inspect, maintain, and repair the heater in accordance with the manufacturer

specifications at least once every two years following the applicable compliance date specified in 20.2.50.119 NMAC. The inspection, maintenance, and repair shall include the following:

- (i) inspecting the burner and cleaning or replacing components of the burner as necessary;
- (ii) inspecting the flame pattern and adjusting the burner as necessary to optimize the flame pattern consistent with the manufacturer specifications;
- (iii) inspecting the AFR controller and ensuring it is calibrated and functioning properly, if present;
- (iv) optimizing total emissions of CO consistent with the NO_x requirement and manufacturer specifications, and good combustion practices; and
- (v) measuring the concentrations in the effluent stream of CO in ppmvd and O₂ in volume percent before and after adjustments are made in accordance with Subparagraph (c) of Paragraph (2) of Subsection C of 20.2.50.119 NMAC.

(2) The owner or operator shall comply with the following periodic testing requirements:

- (a) conduct three test runs of at least 20-minutes duration within ten percent of one-hundred percent peak, or the highest achievable, load;

- (b) determine NO_x and CO emissions and O₂ concentrations in the exhaust with a portable analyzer used and maintained in accordance with the manufacturer specifications and following the procedures specified in the current version of ASTM D6522;

- (c) if the measured NO_x or CO emissions concentrations are exceeding the emissions limits of table 1 of 20.2.50.119 NMAC, the owner or operator shall repeat the inspection and tune-up in Subparagraph (b) of Paragraph (1) of Subsection C of 20.2.50.119 NMAC within 30 days of the periodic testing; and

- (d) if at any time the heater is operated in excess of the highest achievable load in a prior test plus ten percent, the owner or operator shall perform the testing specified in Subparagraph (a) of Paragraph (2) of Subsection C of 20.2.50.119 NMAC within 60 days from the anomalous operation.

(3) When conducting periodic testing of a heater, the owner or operator shall follow the procedures in Paragraph (2) of Subsection C of 20.2.50.119 NMAC. An owner or operator may deviate from those procedures by submitting a written request to use an alternative procedure to the department at least 60 days before performing the periodic testing. In the alternative procedure request, the owner or operator must demonstrate the alternative procedure's equivalence to the standard procedure. The owner or operator must receive written approval from the department prior to conducting the periodic testing using an alternative procedure.

(4) Prior to a monitoring event, the owner or operator shall date and time stamp the event, and the required monitoring data entry shall be made in accordance with this Part.

(5) The owner or operator shall comply with the monitoring requirements of 20.2.50.112 NMAC.

D. Recordkeeping requirements: The owner or operator shall maintain a record of the following:

- (1) unique identification number and location (latitude and longitude) of the heater;
- (2) summary of the complete test report and the results of periodic testing; and
- (3) inspections, testing, maintenance, and repairs, which shall include at a minimum:
 - (a) the date and time stamp, including GPS of the location, of the inspection, testing, maintenance, or repair conducted;

- (b) name of the person(s) conducting the inspection, testing, maintenance, or repair;
- (c) concentrations in the effluent stream of CO in ppmv and O₂ in volume percent;

and

- (d) the results of the inspections and any the corrective action taken.

(4) The owner or operator shall comply with the recordkeeping requirements in 20.2.50.112 NMAC.

E. Reporting requirements: The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.

[20.2.50.119 NMAC - N, XX/XX/2021]

20.2.50.120 HYDROCARBON LIQUID TRANSFERS:

A. Applicability: Hydrocarbon liquid transfers located at existing well sites, standalone tank batteries, gathering and boosting stations with one or more controlled storage vessels, natural gas processing plants, or transmission compressor stations are subject to the requirements of 20.2.50.120 NMAC within two years of the

effective date of this Part. Hydrocarbon liquid transfers at existing gathering and boosting stations (including associated tank batteries) without any controlled storage vessels are subject to the requirements of 20.2.50.120 NMAC on the schedule specified in Paragraph 1 of Subsection B of 20.2.50.123 NMAC. Hydrocarbon liquid transfers located at new well sites, standalone tank batteries, gathering and boosting stations, natural gas processing plants, or transmission compressor stations are subject to the requirements of 20.2.50.120 NMAC upon startup. The following facilities and operations are not subject to the requirements of this Section:

(1) Any facility connected to an oil sales pipeline that is routinely used for hydrocarbon liquid transfers;

(2) Well sites, standalone tank batteries, gathering and boosting stations, natural gas processing plants, or transmission compressor stations not connected to an oil sales pipeline that load out hydrocarbon liquids to trucks fewer than thirteen (13) times in a calendar year; and

(3) Transfers of hydrocarbon liquid from a transfer vessel to a storage vessel subject to the emission standards in 20.2.50.123 NMAC.

B. Emission standards:

(1) The owner or operator of a hydrocarbon liquid transfer operation shall use vapor balance, vapor recovery, or a control device to control VOC emissions by at least ninety-five percent, when transferring hydrocarbon liquid from a storage vessel to a tanker truck or tanker railcar for transport. If a combustion control device is used, the combustion device shall have a minimum design combustion efficiency of ninety-eight percent.

(2) An owner, operator, or personnel conducting the hydrocarbon liquid transfer using vapor balance shall:

(a) transfer the vapor displaced from the transfer truck or railcar being loaded back to the storage vessel being emptied via a pipe or hose connected before the start of the transfer operation. If multiple storage vessels are manifolded together in a tank battery, the vapor may be routed back to any storage vessel in the tank battery;

(b) ensure that the transfer does not begin until the vapor collection and return system is properly connected;

(c) inspect connector pipes, hoses, couplers, valves, and pressure relief devices for leaks;

(d) check the hydrocarbon liquid and vapor line connections for proper connections before commencing the transfer operation; and

(e) operate transfer equipment at a pressure that is less than the pressure relief valve setting of the receiving transport vehicle or storage vessel.

(3) Connector pipes and couplers shall be inspected and maintained to ensure there are no liquid leaks.

(4) Connections of hoses and pipes used during hydrocarbon liquid transfers shall be supported on drip trays that collect any leaks, and the materials collected shall be returned to the process or disposed of in a manner compliant with state law.

(5) Liquid leaks that occur shall be cleaned and disposed of in a manner that minimizes emissions to the atmosphere, and the material collected shall be returned to the process or disposed of in a manner compliant with state law.

(6) An owner or operator complying with Paragraph (1) of Subsection B of 20.2.50.120 NMAC through use of a control device shall comply with the control device requirements in 20.2.50.115 NMAC.

C. Monitoring requirements:

(1) The owner, operator, or their designated representative shall visually inspect the hydrocarbon liquid transfer equipment monthly at staffed locations and semi-annually at unstaffed locations to ensure that hydrocarbon liquid transfer lines, hoses, couplings, valves, and pipes are not dripping or leaking. At least once per calendar year, the inspection shall occur during a transfer operation. Leaking components shall be repaired to prevent dripping or leaking before the next transfer operation, or measures must be implemented to mitigate leaks until the necessary repairs are completed.

(2) The owner or operator of a hydrocarbon liquid transfer operation controlled by a control device must follow manufacturer specifications for the device.

(3) Owners and operators complying with Paragraph (1) of Subsection B of 20.2.50.120 NMAC through use of a control device shall comply with the monitoring requirements in 20.2.50.115 NMAC.

(4) Prior to any monitoring event, the owner or operator shall date and time stamp the event, and the monitoring data entry shall be made in accordance with the requirements of this Part.

(5) The owner or operator shall comply with the monitoring requirements in 20.2.50.112

1 NMAC.

2 **D. Recordkeeping requirements:**

- 3 (1) The owner or operator shall maintain a record of the following:
- 4 (a) the location of the facility;
 - 5 (b) if using a control device, the type, make, and model of the control device;
 - 6 (c) the date and time stamp, including GPS of the location, of any inspection;
 - 7 (d) the name of the person(s) conducting the inspection;
 - 8 (e) a description of any problem observed during the inspection; and
 - 9 (f) the results of the inspection and a description of any repair or corrective action

10 taken.

11 (2) The owner or operator shall maintain a record for each site of the annual total
12 hydrocarbon liquid transferred and annual total VOC emissions. Each calendar year, the owner or operator shall
13 create a company-wide record summarizing the annual total hydrocarbon liquid transferred and the annual total
14 calculated VOC emissions.

15 (3) The owner or operator shall comply with the recordkeeping requirements in 20.2.50.112
16 NMAC.

17 **E. Reporting requirements:** The owner or operator shall comply with the reporting requirements in
18 20.2.50.112 NMAC.
19 [20.2.50.120 NMAC - N, XX/XX/2021]

20
21 **20.2.50.121 PIG LAUNCHING AND RECEIVING:**

22 **A. Applicability:** Individual pipeline pig launcher and receiver operations with a PTE equal to or
23 greater than one tpy VOC located within the property boundary of, and under common ownership or control with,
24 well sites, tank batteries, gathering and boosting stations, natural gas processing plants, and transmission compressor
25 stations are subject to the requirements of 20.2.50.121 NMAC.

26 **B. Emission standards:**

27 (1) Owners and operators of affected pipeline pig launcher and receiver operations shall
28 capture and reduce VOC emissions from pigging operations by at least ninety-five percent within two years of the
29 effective date of this Part. If a combustion control device is used, the combustion device shall have a minimum design
30 combustion efficiency of ninety-eight percent.

31 (2) The owner or operator conducting an affected pig launching and receiving operation
32 shall:

- 33 (a) employ best management practices to minimize the liquid present in the pig
34 receiver chamber and to minimize emissions from the pig receiver chamber to the atmosphere after receiving the pig
35 in the receiving chamber and before opening the receiving chamber to the atmosphere;
- 36 (b) employ a method to prevent emissions, such as installing a liquid ramp or drain,
37 routing a high-pressure chamber to a low-pressure line or vessel, using a ball valve type chamber, or using multiple
38 pig chambers;

39 (c) recover and dispose of receiver liquid in a manner that minimizes emissions to
40 the atmosphere to the extent practicable; and

41 (d) ensure that the material collected is returned to the process or disposed of in a
42 manner compliant with state law.

43 (3) The emission standards in Paragraphs (1) and (2) of Subsection B of 20.2.50.121 NMAC
44 cease to apply to an individual pipeline pig launching and receiving operation if the actual annual VOC emissions of
45 the launcher or receiver operation are less than one tpy of VOC.

46 (4) An owner or operator complying with Paragraph (2) of Subsection B of 20.2.50.121
47 NMAC through use of a control device shall comply with the control device requirements in 20.2.50.115 NMAC.

48 **C. Monitoring requirements:**

49 (1) The owner or operator of an affected pig launching and receiving site shall inspect the
50 equipment for leaks using AVO, RM 21, or OGI on either:

- 51 (a) a monthly basis if pigging operations at a site occur on a monthly basis or more
52 frequently; or
- 53 (b) prior to the commencement and after the conclusion of the pig launching or
54 receiving operation, if less frequent.

55 (2) The monitoring shall be performed using the methodologies outlined in Subsection (C) of
56 20.2.50.116 NMAC as applicable and at the frequency required in Paragraph (1) of Subsection (C) of 20.2.50.121

NMAC. The monitoring shall be performed when the pig trap is under pressure.

(3) An owner or operator complying with Paragraph (1) of Subsection B of 20.2.50.121 NMAC through use of a control device shall comply with the monitoring requirements in 20.2.50.115 NMAC.

(4) The owner or operator shall comply with the monitoring requirements in 20.2.50.112 NMAC.

D. Recordkeeping requirements: The owner or operator of an affected pig launching and receiving site shall maintain a record of the following:

(1) the pigging operation, including the location, date, and time of the pigging operation;

(2) the data and methodology used to estimate the actual emissions to the atmosphere and used to estimate the PTE;

(3) date and time of any monitoring and the results of the monitoring; and

(4) the type of control device and its make and model.

(5) The owner or operator shall comply with the recordkeeping requirements in 20.2.50.112 NMAC.

E. Reporting requirements: The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.

[20.2.50.121 NMAC - N, XX/XX/2021]

20.2.50.122 PNEUMATIC CONTROLLERS AND PUMPS:

A. Applicability: Natural gas-driven pneumatic controllers and pumps located at well sites, tank batteries, gathering and boosting stations, natural gas processing plants, and transmission compressor stations are subject to the requirements of 20.2.50.122 NMAC.

B. Emission standards:

(1) A new natural gas-driven pneumatic controller or pump shall comply with the requirements of 20.2.50.122 NMAC upon startup.

(2) An existing natural gas-driven pneumatic pump shall comply with the requirements of 20.2.50.122 NMAC within three years of the effective date of this Part.

(3) An existing natural gas-driven pneumatic controller shall comply with the requirements of 20.2.50.122 NMAC according to the following schedule:

Table 1 – WELL SITES, STANDALONE TANK BATTERIES, GATHERING AND BOOSTING STATIONS

Total Historic Percentage of Non-Emitting Controllers	Total Required Percentage of Non-Emitting Controllers by January 1, 2024	Total Required Percentage of Non-Emitting Controllers by January 1, 2027	Total Required Percentage of Non-Emitting Controllers by January 1, 2030
> 75%	80%	85%	90%
> 60-75%	80%	85%	90%
> 40-60%	65%	70%	80%
> 20-40%	45%	70%	80%
0-20%	25%	65%	80%

Table 2 – TRANSMISSION COMPRESSOR STATIONS AND GAS PROCESSING PLANTS

Total Historic Percentage of Non-Emitting Controllers	Total Required Percentage of Non-Emitting Controllers by January 1, 2024	Total Required Percentage of Non-Emitting Controllers by January 1, 2027	Total Required Percentage of Non-Emitting Controllers by January 1, 2030
> 75%	80%	95%	98%
> 60-75%	80%	95%	98%
> 40-60%	65%	95%	98%
> 20-40%	50%	95%	98%
0-20%	35%	95%	98%

(4) Standards for natural gas-driven pneumatic controllers.

(a) new pneumatic controllers shall have an emission rate of zero.

(b) existing pneumatic controllers shall meet the required percentage of non-

emitting controllers within the deadlines in tables 1 and 2 of Paragraph (3) of Subsection B of 20.2.50.122 NMAC, and shall comply with the following:

(i) by January 1, 2023, the owner or operator shall determine the total controller count for all controllers at all of the owner or operator's affected facilities that commenced construction before the effective date of this Part. The total controller count must include all emitting pneumatic controllers and all non-emitting pneumatic controllers, except that pneumatic controllers necessary for a safety or process purpose that cannot otherwise be met without emitting natural gas shall not be included in the total controller count.

(ii) determine which controllers in the total controller count are non-emitting and sum the total number of non-emitting controllers and designate those as total historic non-emitting controllers.

(iii) determine the total historic non-emitting percent of controllers by dividing the total historic non-emitting controller count by the total controller count and multiplying by 100.

(iv) based on the percent calculated in (iii) above, the owner or operator shall determine which provisions of tables 1 and 2 of Paragraph (3) of Subsection B of 20.2.50.122 NMAC apply and the replacement schedule the owner or operator must meet.

(v) if an owner or operator meets at least seventy-five percent total non-emitting controllers by January 1, 2025, the owner or operator is not subject to the requirements of tables 1 and 2 of Paragraph (3) of Subsection B of 20.2.50.122 NMAC.

(vi) if after January 1, 2027, an owner or operator's remaining pneumatic controllers are not cost-effective to retrofit, the owner or operator may submit a cost analysis of retrofitting those remaining units to the department. The department shall review the cost analysis and determine whether those units qualify for a waiver from meeting additional retrofit requirements.

(c) a pneumatic controller with a bleed rate greater than six standard cubic feet per hour is permitted when the owner or operator has demonstrated that a higher bleed rate is required based on functional needs, including response time, safety, and positive actuation. An owner or operator that seeks to maintain operation of an emitting pneumatic controller must prepare and document the justification for the safety or process purpose prior to the installation of a new emitting controller or the retrofit of an existing controller. The justification shall be certified by a qualified professional or inhouse engineer.

(d) Temporary pneumatic controllers that emit natural gas and are used for well abandonment activities or used prior to or through the end of flowback, and pneumatic controllers used as emergency shutdown devices located at a well site, are not subject to the requirements of Subsection B of 20.2.50.122 NMAC.

(e) Temporary or portable pneumatic controllers that emit natural gas and are on-site for less than 90 days are not subject to the requirements of Subsection B of 20.2.50.122 NMAC.

(5) Standards for natural gas-driven pneumatic diaphragm pumps.

(a) new pneumatic diaphragm pumps located at natural gas processing plants shall have an emission rate of zero.

(b) new pneumatic diaphragm pumps located at well sites, tank batteries, gathering and boosting stations, or transmission compressor stations with access to commercial line electrical power shall have an emission rate of zero.

(c) existing pneumatic diaphragm pumps located at well sites, tank batteries, gathering and boosting stations, natural gas processing plants, or transmission compressor stations with access to commercial line electrical power shall have an emission rate of zero within two years of the effective date of this Part.

(d) owners and operators of pneumatic diaphragm pumps located at well sites, tank batteries, gathering and boosting stations, or transmission compressor stations without access to commercial line electrical power shall reduce VOC emissions from the pneumatic diaphragm pumps by ninety-five percent if it is technically feasible to route emissions to a control device, fuel cell, or process. If there is a control device available onsite but it is unable to achieve a ninety-five percent emission reduction, and it is not technically feasible to route the pneumatic diaphragm pump emissions to a fuel cell or process, the owner or operator shall route the pneumatic diaphragm pump emissions to the control device within two years of the effective date of this Part.

C. Monitoring requirements:

(1) Pneumatic controllers or diaphragm pumps not using natural gas or other hydrocarbon gas as a motive force are not subject to the monitoring requirements in Subsection C of 20.2.50.122 NMAC.

(2) The owner or operator of a facility with one or more natural gas-driven pneumatic controllers subject to the deadlines set forth in tables 1 and 2 of Paragraph (3) of Subsection B of 20.2.50.122

1 NMAC shall monitor the compliance status of each subject pneumatic controller at each facility.

2 (3) The owner or operator of a natural gas-driven pneumatic controller shall, on a monthly
3 basis, conduct an AVO or OGI inspection, and shall also inspect the pneumatic controller, perform necessary
4 maintenance (such as cleaning, tuning, and repairing a leaking gasket, tubing fitting and seal; tuning to operate over
5 a broader range of proportional band; eliminating an unnecessary valve positioner), and maintain the pneumatic
6 controller according to manufacturer specifications to ensure that the VOC emissions are minimized.

7 (4) The owner or operator's database shall contain the following:

8 (a) natural gas-driven pneumatic controller unique identification number;

9 (b) type of controller (continuous or intermittent);

10 (c) if continuous, design continuous bleed rate in standard cubic feet per hour;

11 (d) if intermittent, bleed volume per intermittent bleed in standard cubic feet; and

12 (e) if continuous, design annual bleed rate in standard cubic feet per year.

13 (5) The owner or operator of a natural gas-driven pneumatic diaphragm pump shall, on a
14 monthly basis, conduct an AVO or OGI inspection and shall also inspect the pneumatic pump and perform
15 necessary maintenance, and maintain the pneumatic pump according to manufacturer specifications to ensure that
16 the VOC emissions are minimized.

17 (6) The owner or operator of a natural gas-driven pneumatic controller shall comply with the
18 requirements in Paragraph (3) of Subsection C or Subsection D of 20.2.50.116 NMAC. During instrument
19 inspections, operators shall use RM 21, OGI, or alternative instruments used under Subsection D of 20.2.50.116
20 NMAC to verify that intermittent controllers are not emitting when not actuating. Any intermittent controller
21 emitting when not actuating shall be repaired consistent with Subsection E of 20.2.50.116 NMAC.

22 (7) Prior to any monitoring event, the owner or operator shall date and time stamp the event,
23 and the monitoring data entry shall be made in accordance with the requirements of this Part.

24 (6) The owner or operator shall comply with the monitoring requirements in 20.2.50.112
25 NMAC.

26 **D. Recordkeeping requirements:**

27 (1) Non-emitting pneumatic controllers and diaphragm pumps are not subject to the
28 recordkeeping requirements in Subsection D of 20.2.50.122 NMAC.

29 (2) The owner or operator shall maintain a record of the total controller count for all
30 controllers at all of the owner or operator's affected facilities that commenced operation before the effective date of
31 this Part. The total controller count must include all emitting and non-emitting pneumatic controllers.

32 (3) The owner or operator shall maintain a record of the total count of natural gas-driven
33 pneumatic controllers necessary for a safety or process purpose that cannot otherwise be met without emitting VOC.

34 (4) The owner or operator of a natural gas-driven pneumatic controller subject to the
35 requirements in tables 1 and 2 of Paragraph (3) of Subsection B of 20.2.50.122 NMAC shall generate a schedule for
36 meeting the compliance deadlines for each pneumatic controller. The owner or operator shall keep a record of the
37 compliance status of each subject controller.

38 (5) The owner or operator shall maintain an electronic record for each natural gas-driven
39 pneumatic controller. The record shall include the following:

40 (a) pneumatic controller unique identification number;

41 (b) time and date stamp, including GPS of the location, of any monitoring;

42 (c) name of the person(s) conducting the inspection;

43 (d) AVO or OGI inspection result;

44 (e) AVO or OGI level discrepancy in continuous or intermittent bleed rate;

45 (f) record of the controller type, bleed rate, or bleed volume required in
46 Subparagraphs (b), (c), (d), and (e) of Paragraph (4) of Subsection C on 20.2.50.122 NMAC.

47 (g) maintenance date and maintenance activity; and

48 (h) a record of the justification and certification required in Subparagraph (c) of
49 Paragraph (4) of Subsection B of 20.2.50.122 NMAC.

50 (6) The owner or operator of a natural gas-driven pneumatic controller with a bleed rate
51 greater than six standard cubic feet per hour shall maintain a record documenting why a bleed rate greater than six
52 scf/hr is necessary, as required in Subsection B of 20.2.50.122 NMAC.

53 (7) The owner or operator shall maintain a record for a natural gas-driven pneumatic pump
54 with an emission rate greater than zero and the associated pump number at the facility. The record shall include:

55 (a) for a natural gas-driven pneumatic diaphragm pump in operation less than 90
56 days per calendar year, a record for each day of operation during the calendar year.

(b) a record of any control device designed to achieve at least ninety-five percent emission reduction, including an evaluation or manufacturer specifications indicating the percentage reduction the control device is designed to achieve.

(c) records of the engineering assessment and certification by a qualified professional or inhouse engineer that routing pneumatic pump emissions to a control device, fuel cell, or process is technically infeasible.

(8) The owner or operator shall comply with the recordkeeping requirements in 20.2.50.112 NMAC.

E. Reporting requirements: The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.
[20.2.50.122 NMAC - N, XX/XX/2021]

20.2.50.123 STORAGE VESSELS

A. Applicability: New storage vessels with a PTE equal to or greater than two tpy of VOC, existing storage vessels with a PTE equal to or greater than three tpy of VOC in multi-tank batteries, and existing storage vessels with a PTE equal to or greater than four tpy of VOC in single tank batteries are subject to the requirements of 20.2.50.123 NMAC. Storage vessels in multi-tank batteries manifolded together such that all vapors are shared between the headspace of the storage vessels and are routed to a common outlet or endpoint may determine an individual storage vessel PTE by averaging the emissions across the total number of storage vessels. Storage vessels associated with produced water management units are required to comply with this Section to the extent specified in Subsection B of Section 20.2.50.126.

B. Emission standards:

(1) An existing storage vessel subject to this Section shall have a combined capture and control of VOC emissions of at least ninety-five percent according to the following schedule. If a combustion control device is used, the combustion device shall have a minimum design combustion efficiency of ninety-eight percent.

(a) By January 1, 2025, an owner or operator shall ensure at least 30% of the company's existing storage vessels are controlled;

(b) By January 1, 2027, an owner or operator shall ensure at least an additional 35% of the company's existing storage vessels are controlled; and

(c) By January 1, 2029, an owner or operator shall ensure the company's remaining existing storage vessels are controlled.

(2) A new storage vessel subject to this Section shall have a combined capture and control of VOC emissions of at least ninety-five percent upon startup. If a combustion control device is used, the combustion device shall have a minimum design combustion efficiency of ninety-eight percent.

(3) The emission standards in Subsection B of 20.2.50.123 NMAC cease to apply to a storage vessel if the actual annual VOC emissions decrease to less than two tpy.

(4) If a control device is not installed by the date specified in Paragraphs (1) and (2) of Subsection B of 20.2.50.123 NMAC, an owner or operator may comply with Subsection B of 20.2.50.123 NMAC by shutting in the well supplying the storage vessel by the applicable date, and not resuming production from the well until the control device is installed and operational.

(5) The owner or operator of a new or existing storage vessel with a thief hatch shall ensure that the thief hatch is capable of opening sufficiently to relieve overpressure in the vessel and to automatically close once the vessel overpressure is relieved. Any pressure relief device installed must automatically close once the vessel overpressure is relieved.

(6) An owner or operator complying with Paragraphs (1) and (2) of Subsection B of 20.2.50.123 NMAC through use of a control device shall comply with the control device operational requirements in 20.2.50.115 NMAC.

C. Storage vessel measurement requirements: Owners and operators of new storage vessels required to be controlled pursuant to this Part at well sites, tank batteries, gathering and boosting stations, or natural gas processing plants shall use a storage vessel measurement system to determine the quantity of liquids in the storage vessel(s). New tank batteries receiving an annual average of 200 bbls oil/day or more with available grid power shall be outfitted with a lease automated custody transfer (LACT) unit(s).

(1) The owner or operator shall keep thief hatches (or other access points to the vessel) and pressure relief devices on storage vessels closed and latched during activities to determine the quantity of liquids in the storage vessel(s), except as necessary for custody transfer. Tank batteries equipped with LACT units shall use the LACT unit measurements in lieu of field testing of quantity and quality except in case of malfunction. Nothing

in this paragraph shall be construed to prohibit the opening of thief hatches, pressure relief devices, or any other openings or access points to perform maintenance or similar activities designed to ensure the safety or proper operation of the storage vessel(s) or related equipment or processes. Where opening a thief hatch is necessary, owners and operators of new and existing storage vessels shall minimize the time the thief hatch is open.

(2) The owner or operator may inspect, test, and calibrate the storage vessel measurement system either semiannually, or as directed by the Bureau of Land Management (see 43 C.F.R. Section 374.6(b)(5)(ii)(B) (November 17, 2016)) or system manufacturer. Opening a thief hatch if required to inspect, test, or calibrate the vessel measurement system is not a violation of Paragraph (1) of this Subsection.

(3) The owner or operator shall install signage at or near the storage vessel that indicates which equipment and method(s) are used and the appropriate and necessary operating procedures for that system.

(4) The owner or operator shall develop and implement an annual training program for employees and third parties conducting activities subject to this Subsection that includes, at a minimum, operating procedures for each type of system.

(5) The owner or operator must make and retain the following records for at least two (2) years and make such records available to the department upon request:

- (a) date of construction of the storage vessel or facility;
- (b) description of the storage vessel measurement system used to comply with this Subsection;
- (c) date(s) of storage vessel measurement system inspections, testing, and calibrations that require opening the thief hatch pursuant to Paragraph (3) of this Subsection;
- (d) manufacturer specifications regarding storage vessel measurement system inspections and/or calibrations, if followed pursuant to Paragraph (3) of this Subsection; and
- (e) records of the annual training program, including the date and names of persons trained.

D. Monitoring requirements: No later than January 1, 2023, the owner or operator of a storage vessel shall:

- (1) monthly, monitor, or calculate or estimate, the total monthly liquid throughput (in barrels) and the upstream separator pressure (in psig) if the storage vessel is directly downstream of a separator. When a storage vessel is unloaded less frequently than monthly, the throughput and separator pressure monitoring shall be conducted before the storage vessel is unloaded;
- (2) conduct an AVO inspection on a weekly basis. If the storage vessel is unloaded less frequently than weekly, the AVO inspection shall be conducted before the storage vessel is unloaded;
- (3) inspect the storage vessel monthly to ensure compliance with the requirements of 20.2.50.123 NMAC. The inspection shall include a check to ensure the vessel does not have a leak;
- (4) prior to any monitoring event, date and time stamp the event and enter the monitoring data in accordance with the requirements of this Part; and
- (5) comply with the monitoring requirements in 20.2.50.115 NMAC if using a control device to comply with the requirements in Paragraphs (1) and (2) of Subsection B of 20.2.50.123 NMAC.
- (6) comply with the monitoring requirements of 20.2.50.112 NMAC.

DE. Recordkeeping requirements: No later than January 1, 2023, the owner or operator of a storage vessel shall comply with the following requirements:

- (1) Monthly, maintain a record for each storage vessel of the following:
 - (a) unique identification number and location (latitude and longitude);
 - (b) monitored, calculated, or estimated monthly liquid throughput;
 - (c) the upstream separator pressure, if a separator is present;
 - (d) the data and methodology used to calculate the actual emissions of VOC (tpy);
 - (e) the controlled and uncontrolled VOC emissions (tpy); and
 - (f) the type, make, model, and identification number of any control device.
- (2) Verify each record of liquid throughput by dated liquid level measurements, a dated delivery receipt from the purchaser of the hydrocarbon liquid, the metered volume of hydrocarbon liquid sent downstream, or other proof of transfer.
- (3) Make a record of the inspections required in Subsections C and D of 20.2.50.123 NMAC, including:
 - (a) the date and time stamp, including GPS of the location, of the inspection;
 - (b) the person(s) conducting the inspection;
 - (c) a description of any problem observed during the inspection; and

(d) a description and date of any corrective action taken.

(4) Comply with the recordkeeping requirements in 20.2.50.115 NMAC if complying with the requirements in Paragraphs (1) and (2) of Subsection B of 20.2.50.123 NMAC through use of a control device shall comply with the recordkeeping requirements in 20.2.50.115 NMAC.

(5) The owner or operator shall comply with the recordkeeping requirements in 20.2.50.112 NMAC.

E. Reporting requirements:

(1) An owner or operator complying with the requirements in Paragraphs (1) and (2) of Subsection B of 20.2.50.123 NMAC through use of a control device shall comply with the reporting requirements in 20.2.50.115 NMAC.

(2) The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.

[20.2.50.123 NMAC - N, XX/XX/2021]

20.2.50.124 WELL WORKOVERS

A. Applicability: Workovers performed at oil and natural gas wells are subject to the requirements of 20.2.50.124 NMAC as of the effective date of this Part.

B. Emission standards: The owner or operator of an oil or natural gas well shall use the following best management practices during a workover to minimize emissions, consistent with the well site condition and good engineering or operational practices:

(1) reduce wellhead pressure before blowdown to minimize the volume of natural gas vented;

(2) monitor manual venting at the well until the venting is complete; and

(3) route natural gas to the sales line, if possible.

C. Monitoring requirements:

(1) The owner or operator shall monitor the following parameters during a workover:

(a) wellhead pressure;

(b) flow rate of the vented natural gas (to the extent feasible); and

(c) duration of venting to the atmosphere.

(2) The owner or operator shall calculate the estimated volume and mass of VOC vented during a workover.

(3) The owner or operator shall comply with the monitoring requirements in 20.2.50.112 NMAC.

D. Recordkeeping requirements:

(1) The owner or operator shall keep the following record for a workover:

(a) unique identification number and location (latitude and longitude) of the well;

(b) date the workover was performed;

(c) wellhead pressure;

(d) flow rate of the vented natural gas to the extent feasible, and if measurement of the flow rate is not feasible, the owner or operator shall use the maximum potential flow rate in the emission calculation;

(e) duration of venting to the atmosphere;

(f) description of the best management practices used to minimize release of VOC emissions before and during the workover;

(g) calculation of the estimated VOC emissions vented during the workover based on the duration, volume, and gas composition; and

(h) the method of notification to the public and proof that notification was made to the affected public.

(2) The owner or operator shall comply with the recordkeeping requirements in 20.2.50.112 NMAC.

E. Reporting requirements:

(1) The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.

(2) If it is not feasible to prevent VOC emissions from being emitted to the atmosphere from a workover event, the owner or operator shall notify by certified mail, or by other effective means of notice so long as the notification can be documented, all residents located within one-quarter mile of the well of the planned

workover at least three calendar days before the workover event.

(3) If the workover is needed for routine or emergency downhole maintenance to restore production lost due to upsets or equipment malfunction, the owner or operator shall notify all residents located within one-quarter mile of the well of the planned workover at least 24 hours before the workover event. [20.2.50.124 NMAC - N, XX/XX/2021]

20.2.50.125 SMALL BUSINESS FACILITIES

A. Applicability: Small business facilities as defined in this Part are subject to Sections 20.2.50.125 NMAC and 20.2.50.127 NMAC of this Part. Small business facilities are not subject to any other requirements of this Part unless specifically identified in 20.2.50.125 NMAC.

B. General requirements:

(1) The owner or operator shall ensure that all equipment is operated and maintained consistent with manufacturer specifications, and good engineering and maintenance practices. The owner or operator shall keep manufacturer specifications and maintenance practices on file and make them available to the department upon request.

(2) The owner or operator shall calculate the VOC and NO_x emissions from the facility on an annual basis. The calculation shall be based on the actual production or processing rates of the facility.

(3) The owner or operator shall maintain a database of company-wide VOC and NO_x emission calculations for all subject facilities and associated equipment and shall update the database annually.

(4) The owner or operator shall comply with Paragraph (9) of Subsection A of 20.2.50.112 NMAC if requested by the department.

C. Monitoring requirements: The owner or operator shall comply with the requirements in Subsections C or D of 20.2.50.116 NMAC.

D. Repair requirements: The owner or operator shall comply with the requirements of Subsection E of 20.2.50.116 NMAC.

E. Recordkeeping requirements: The owner or operator shall maintain the following electronic records for each facility:

- (1) annual certification that the small business facility meets the definition in this Part;
- (2) calculated annual VOC and NO_x emissions from each facility and the company-wide annual VOC and NO_x emissions for all subject facilities; and
- (3) records as required under Subsection F of 20.2.50.116 NMAC.

F. Reporting requirements: The owner or operator shall submit to the department an initial small business certification within sixty days of the effective date of this Part, and by March 1 of each calendar year thereafter. The certification shall be made on a form provided by the department. The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.

G. Failure to comply with 20.2.50.125 NMAC: Notwithstanding the provisions of Section 20.2.50.125 NMAC, a source that meets the definition of a small business facility can be required to comply with the other Sections of 20.2.50 NMAC if the Secretary finds based on credible evidence that the source (1) presents an imminent and substantial endangerment to the public health or welfare or to the environment; (2) is not being operated or maintained in a manner that minimizes emissions of air contaminants; or (3) has violated any other requirement of 20.2.50.125 NMAC.

[20.2.50.125 NMAC - N, XX/XX/2021]

20.2.50.126 PRODUCED WATER MANAGEMENT UNITS

A. Applicability: Produced water management units as defined in this Part and their associated storage vessels are subject to 20.2.50.126 NMAC and shall comply with these requirements no later than 180 days after the effective date of this Part.

B. Emission standards:

(1) The owner or operator shall use good operational or engineering practices to minimize emissions of VOC from produced water management units (PWMU) and their associated storage vessels.

(2) The owner or operator shall not allow any transfer of untreated produced water to a PWMU without first processing and treating the produced water in a separator and/or storage vessel to minimize entrained hydrocarbons.

(3) Within two years of the effective date of this Part for storage vessels associated with existing PWMUs, or upon startup for storage vessels associated with new PWMUs, the owner or operator shall either:

1 (a) control such storage vessels in accordance with the requirements of Section
2 20.2.50.123 NMAC that are applicable to tank batteries; or

3 (b) submit a VOC minimization plan to the department demonstrating that
4 controlling VOC emissions from storage vessels associated with the PWMU in accordance with the requirements of
5 Section 20.2.50.123 NMAC is technically infeasible without supplemental fuel. The plan shall state the good
6 operational or engineering practices used to minimize VOC emissions. The plan shall be enforceable by the
7 department upon submission. The department may require revisions to the plan, and must approve any proposed
8 revisions to the plan.

9 **C. Monitoring requirements:** The owner or operator shall:

10 (1) develop a protocol to calculate the VOC emissions from each PWMU. The protocol shall
11 include at a minimum: produced water throughput monitoring, semi-annual sampling and analysis of the liquid
12 composition, hydrocarbon measurement method(s), representative sample size, and chain of custody requirements.

13 (2) calculate the monthly total VOC emissions in tons from each unit with the first month of
14 emission calculations beginning within 180 days of the effective date of this Part;

15 (3) monthly, monitor the best management and good operational or engineering practices
16 implemented to reduce emissions at each unit to ensure and demonstrate their effectiveness; and

17 (4) upon written request by the department, sample the PWMU to determine the VOC
18 content of the liquid; and

19 (5) comply with the monitoring requirements of 20.2.50.112 NMAC.

20 **D. Recordkeeping requirements:**

21 (1) The owner or operator shall maintain the following electronic records for each PWMU:

22 (a) unique identification number and UTM coordinates of the PWMU;

23 (b) the good operational or engineering practices used to minimize emissions of
24 VOC from the unit;

25 (c) records related to the VOC emissions calculation protocol required in
26 Subsection C of 20.2.50.126 NMAC, including the results of the sampling conducted in accordance with the
27 protocol; and

28 (d) a record of the annual total VOC emissions from each unit.

29 (2) The owner or operator shall comply with the recordkeeping requirements in 20.2.50.112
30 NMAC.

31 **E. Reporting requirements:** The owner or operator shall comply with the reporting requirements in
32 20.2.50.112 NMAC.

33 [20.2.50.126 NMAC - N, XX/XX/2021]
34

35 **20.2.50.127 PROHIBITED ACTIVITY AND CREDIBLE EVIDENCE**

36 **A.** Failure to comply with the emissions standards, monitoring, recordkeeping, reporting or other
37 requirements of this Part within the timeframes specified shall constitute a violation of this Part subject to
38 enforcement action under Section 74-2-12 NMSA 1978.

39 **B.** If credible evidence or information obtained by the department or provided to the department by a
40 third party indicates that a source is not in compliance with the provisions of this Part that evidence or information
41 may be used by the department for purposes of establishing whether a person has violated or is in violation of this
42 Part.
43

44 **HISTORY OF 20.2.50 NMAC:** [RESERVED]